

Yale Examination
Papers.



LD papers.

# Southern Branch of the University of California Los Angeles

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# YALE

1469

# Examination Papers.

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BY

F. B. STEVENS.



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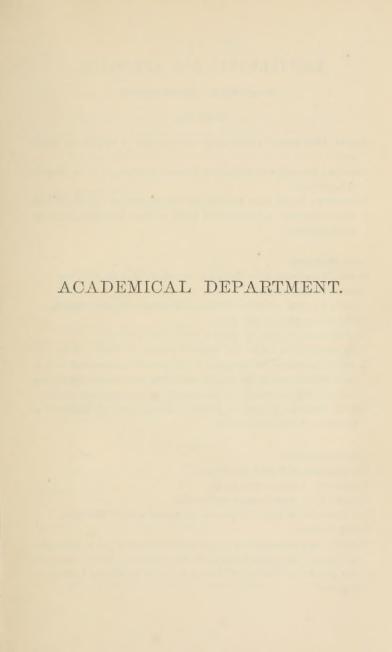
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### NOTE.

This book is published for the convenience of teachers and pupils in preparatory schools, and may profitably be used as a text-book for review. It contains a complete set of papers used at the regular entrance examinations since 1876, when the present system of written examinations was fully established, together with eight consecutive entrance papers of the Sheffield Scientific School.

The papers used hereafter will be added from year to year.



# REQUIREMENTS FOR ADMISSION.

(ACADEMICAL DEPARTMENT.)

### 1883-84.

Higher Arithmetic: Including the metric system of weights and measures.

Algebra: So much as is included in Loomis's Treatise, up to the chapter on Logarithms.

Geometry: Euclid, book first, and the first 33 exercises thereon in Todhunter's edition; or, the first four books in other geometries, with the above exercises.

### Latin Grammar.

Cæsar: Four books of the Gallic war, or two books of the Civil war.

Cicero: Seven Orations.

Vergil: Bucolics, and first six books of the Æneid, including Prosody.

Ovid: Metamorphoses, 2500 lines.

The translation, at sight, of passages from Cicero or Cæsar.

The translation into Latin of a connected passage of English prose. [As special importance will be given to this part of the examination, it is suggested to teachers that they connect exercises in making Latin, both oral and written, with all the Latin studies of the preparatory course.]

Roman History: Creighton's Primer of Roman History is suggested as indicating the amount required.

### Greek Grammar.

The translation of English into Greek.

Xenophon: Anabasis, four books.

Homer: Iliad, three books, with Prosody.

The translation, at sight, of a passage from some work of Xenophon.

Greek History.

The rules for pronunciation given in Hadley's Grammar are recommended as a guide. For Greek History, Dr. Wm. Smith's or Fyffe's text-book; and for Greek Composition, Jones's Exercises or White's Lessons are suggested.

- 2. Divide  $\frac{4}{6\frac{4}{7}} \frac{1}{7}$  by  $\frac{8}{11}$ .
- 3. Find, to three decimal places, the value of  $\frac{1}{\sqrt{3}}$ .
- 4. Find the 4th term of a proportion of which the first, second, and third terms are, respectively, 3.81, 0.056, 1.67.
  - 5. Reduce 3 R. 13 sq. rds. 8 sq. ft. to decimal of an acre.
- 6. (a) In a board 4<sup>m</sup> long and 0.4<sup>m</sup> wide, how many square decimeters?
  - (b) Divide 2700hl by 90cl.

- 1. Divide  $\frac{3}{4}$  of  $\frac{5}{16}$  of  $\frac{8}{2}$  by  $\frac{3\frac{3}{4}}{5\frac{7}{10}}$ , and add the quotient to  $\frac{3}{4} \frac{7}{15}$ .
- $\sim$  2. Find  $\sqrt{\frac{1}{21}}$  to three decimal places.
  - 3. Find, to three decimal places, the number which has to 0.649 the same ratio which 58 has to 634.
- 4. A man bought a piece of ground containing 0.316 A. at 53 cts. a square foot; what did he pay for the piece?
  - 5. A grocer buys sugar at 18 cts. a kilo, and sells it at 1ct. per 50°; how much per cent does he gain?

- 1. Find the value of  $\frac{3\frac{4}{5}}{5\frac{9}{10}}$  of  $\frac{3}{4}$  of an acre at \$1.36 per square foot.
- 2. Divide 3.63 by 2.353, and find the square root of the quotient to three decimal places.
  - 3. Find a fourth proportional to 3.75, 0.23, and 0.16.
  - 4. (a) Multiply the sum of 7km, 823m, and 125mm, by 5.12.
    - (b) What is the weight in kilograms of 12<sup>hl</sup> of water?

- 1. Divide 82.1 by 41, 8.21 by 0.41, and 0.821 by 410. Carry the result in each case to four decimal places.
  - 2. Find the value to three decimal places of

$$\sqrt{(0.146)^2 + (0.063)^2}$$
.

- 3. Divide  $\frac{3\frac{8}{9} + \frac{6}{5} + \frac{1}{12}}{\frac{2}{3} \text{ of } 5\frac{7}{8}} \times \frac{1}{\frac{4}{5}} \text{ by } \frac{133}{141}$ .
- 4. Some sugar is adulterated as follows:  $\frac{3}{10}$  is worth 8 cents per pound,  $\frac{4}{9}$  is worth 10 cents per pound,  $\frac{2}{15}$  is worth 12 cents per pound, and the remainder, 33 pounds, is sand. What is the mixture worth per pound?
- 5. Bank stock which sells at 170 pays an annual dividend of  $12\frac{1}{2}$  per cent. What rate of interest does a buyer receive?
- 6. Find the depth in meters of a cubical cistern which has a capacity of 30,000<sup>1</sup>. Give the result to three decimal places.

- 1. Divide (3a-b) by  $a+b+\frac{a-b}{1+\frac{a-b}{a+b}}$ , and simplify.
- 2. (a) Find the sum and difference of  $\sqrt{18 a^5 b^3}$  and  $\sqrt{50 a^3 b^3}$ .
  - (b) Multiply  $2\sqrt{3} \sqrt{-5}$  by  $4\sqrt{3} 2\sqrt{-5}$ .
  - 3. Solve the equation,

$$\frac{x-1}{7} + \frac{23-x}{5} = 7 - \frac{4+x}{4}$$

4. Solve the equation,

$$\frac{x-3}{x-2} - \frac{x-4}{x-1} = \frac{7}{20}.$$

- 5. The sum of an arithmetical progression, whose first term is 2 and last term 42, is 198; find the common difference and the number of terms.
  - 6. Expand to four terms, by the binomial theorem,  $(a^3-b)^{\frac{1}{2}}$ .

- 1. (a) Divide  $\frac{a+1}{a-1} + \frac{a-1}{a+1}$  by  $\frac{a+1}{a-1} \frac{a-1}{a+1}$ , and reduce the quotient to its simplest form.
  - (b) Find the greatest common divisor of  $x^4 6x^2 8x 3$  and  $4x^3 12x 8$ .
  - 2. (a) Find the sum of  $6\sqrt[6]{4a^2}$ ,  $2\sqrt[3]{2a}$ , and  $\sqrt[9]{8a^3}$ .
- (b) Reduce to its simplest form the product,  $(x-1-\sqrt{-2})(x-1+\sqrt{-2})(x-2+\sqrt{-3})(x-2-\sqrt{-3}).$

3. Solve the equations,

(a) 
$$\frac{1}{3}(2x-10) - \frac{1}{11}(3x-40) = 15 - \frac{1}{5}(57-x)$$
;  
(b)  $x-1+\frac{2}{x-4}=0$ ;  
(c)  $\frac{x}{x^2-1} = \frac{x^2+1}{x}$ .

- 4. Four numbers are in arithmetical progression: the product of the first and third is 27, and the product of the second and fourth is 72; what are the numbers?
  - 5. By the binomial theorem, expand to four terms,

(a) 
$$(1-b)^{-3}$$
; (b)  $(x^2-y^2)^{\frac{1}{3}}$ .

### 1881.

- Free from negative exponents  $(4a^{-3}b^2x^{-4})^{-4}$ .
- Reduce to lowest terms  $\frac{x^2 2x 15}{x^2 + 10x + 21}.$
- Factor  $n^3 2n^2 + n$ ,  $x^3 1$ ,  $x^3 n^3y^3$ ,  $x^6 + y^6$ .
- Make denominator rational of  $\frac{2}{\sqrt{5}-\sqrt{2}}$ .
- Multiply  $\sqrt{x-2} + \sqrt{-3}$  by  $\sqrt{x+2} \sqrt{-3}$ .
- 6. Solve  $\frac{5}{x} \frac{3x+1}{x^2} = \frac{1}{4}$ . 7. Solve  $\begin{cases} x^2 xy = 153 \\ x + y = 1 \end{cases}$
- 8. By the binomial theorem, expand to four terms  $\frac{1}{\sqrt{y_1-x^2}}$
- Sum the infinite series  $1 + \frac{1}{2} + \frac{1}{4} + \cdots$

- 1. Factor  $a^3 4a^2b + 4ab^2$ ,  $4x^4y^4 9x^2y^2$ .
- 2. Solve  $x^2 = 21 + \sqrt{x^2 9}$ .

3. Find the continued product of

$$x - (2 + \sqrt{3}), \quad x - (2 - \sqrt{3}), x - (3 - \sqrt{-1}), \quad x - (3 + \sqrt{-1}).$$

- 4. Divide 50 into two parts, such that the greater, increased by 3, shall be to the less, diminished by 3, as 3 to 2.
  - 5. Given  $\begin{cases} x^2 + y^2 = 25 \\ 2xy = 24 \end{cases}$ ; find x and y.
  - 6. Sum the infinite series  $1, \frac{1}{3}, \frac{1}{9}, \cdots$
  - 7. Resolve  $\frac{5 \cdot x 19}{x^2 8 \cdot x + 15}$  into partial fractions.
  - 8. Expand by the binomial theorem, to 3 terms,  $\frac{b}{a}\sqrt{x^2-a^3}$ .
  - 9. Revert the series  $y = x + x^2 + x^3 + x^4$ .

### 1883.

1. Reduce the following expression to its simplest form:

$$\frac{1}{x(x-a)(x-b)} + \frac{1}{a(a-x)(a-b)} + \frac{1}{b(b-x)(b-a)}$$

- 2. Resolve  $y^9 b^9$  into three factors.
- 3. Change  $xy^{-2} 2x^{\frac{1}{2}}y^{-1}z^{-\frac{1}{4}} + z^{-1}$  to an expression which will contain no negative exponents.
- 4. If  $\frac{a+b+c+d}{a+b-c-d} = \frac{a-b+c-d}{a-b-c+d}$ , prove by the princiciples of proportion that  $\frac{a}{b} = \frac{c}{d}$ .
  - 5. Find the value of  $2a\sqrt{1+x^2}$ , when

$$x = \frac{1}{2} \left( \sqrt{\frac{a}{b}} - \sqrt{\frac{\overline{b}}{a}} \right).$$

6. Given  $(7-4\sqrt{3}) x^2 + (2-\sqrt{3}) x = 2$ , to find x.

- 7. The sum of two numbers is 16, and the sum of their reciprocals is  $\frac{1}{3}$ . What are the numbers?
  - 8. Compute the value of the continued fraction,

$$\frac{1}{2 + \frac{1}{1 + \frac{1}{4 + \frac{1}{5}}}}$$

- 9. Convert  $\frac{1}{\sqrt{1+x^2}}$  into an infinite series by the Method of Indeterminate Coefficients, or by the Binomial Theorem.
  - 10. Insert three geometrical means between \( \frac{1}{3} \) and 128.

### (Euclid.)

- 1. If a straight line falling on two other straight lines, make the exterior angle equal to the interior and opposite angle on the same side of the line, or make the interior angles on the same side together equal to two right angles, the two straight lines shall be parallel to one another.
- 2. To describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.
- 3. If a straight line be divided into any two parts, the squares on the whole line, and on one of the parts, are equal to twice the rectangle contained by the whole and that part, together with the square on the other part.

### (LEGENDRE.)

- 1. If two sides of a quadrilateral are equal and parallel, the figure is a parallelogram.
- 2. (a) To erect a perpendicular to a given straight line, at a given point of that line.
- (b) At a point on a given straight line, to construct an angle equal to a given angle.
- 3. In any triangle, the square of a side opposite an acute angle is equal to the sum of the squares of the base and the other side, diminished by twice the rectangle of the base and the distance from the vertex of the acute angle to the foot of the perpendicular drawn from the vertex of the opposite angle to the base, or to the base produced.

### (Loomis.)

1. If two triangles have two sides of the one equal to two sides of the other, each to each, but the included angles unequal, the base of that which has the greater angle will be greater than the base of the other.

- 2. Through any three points not in the same straight line, one circumference may be made to pass, and but one.
- 3. The rectangle contained by the sum and difference of two lines is equivalent to the difference of the squares of those lines.

[Candidates for examination in Euclid may take questions 2, 3, and 5. Candidates for examination in Loomis may take questions 1, 4, and 5. Candidates for examination in Legendre may take questions 2(b), 3, and 6. Candidates for examination in other Geometries may demonstrate as many of the theorems as they can, and do the problem (3) by the methods to which they are accustomed.]

- 1. The opposite sides and angles of a parallelogram are equal to each other.
  - 2. If a straight line, meeting two other straight lines,
- (a) Make an exterior angle equal to an interior and opposite (or remote) angle on the same side; or
- (b) Make the interior angles on the same side together equal to two right angles, the two lines are parallel.
- 3. To draw a perpendicular to a given straight line, from a given point without that line.
- 4. Parallelograms which have equal bases and equal altitudes are equivalent.
- 5. If a straight line be divided into any two parts, the square of the whole line is equal (or equivalent) to the squares of the two parts, together with twice the rectangle contained by the parts.
- 6. The rectangle contained by the sum and difference of two lines is equivalent to the difference of the squares of those lines.

### 1880.

[Candidates who offer Euclid may take 1 and 3. Candidates who offer Loomis's Geometry or Davies's Legendre may take 1 and 4. Candidates who offer Chauvenet's Geometry may take 2 and 5. Other candidates may prove theorem 1 or 2, and do one of the problems (3, 4, and 5) by the methods to which they are accustomed.]

- 1. If a straight line fall on two parallel straight lines, it makes the alternate angles equal to one another, and the exterior angle equal to the interior and opposite (or remote) angle on the same side; and also the two interior angles on the same side together equal to two right angles.
- 2. If two parallel lines are cut by a third straight line, the alternate interior angles are equal.
- Cor. I. The alternate-exterior angles are also equal to each other.
- Cor. II. Any one of the eight angles is equal to its corresponding angle.
- Cor. III. The sum of the two interior angles on the same side of the secant line is equal to two right angles.
- 3. To divide a straight line into two parts, so that the rectangle contained by the whole and one of the parts may be equal to the square on the other part.
- 4. To divide a given line into two parts, such that the greater part may be a mean proportional between the whole line and the other part.
- 5. (a) At a given point in a given circumference, to draw a tangent to the circumference.
- (b) Through a given point without a given circle, to draw a tangent to the circle.

[Candidates who offer Euclid may take 1, 2, and 3. Candidates who offer any other Geometry may take any four propositions of 3 to 7 inclusive. The Candidate will please state in writing the Geometry which he offers.]

- 1. To describe a parallelogram that shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.
- 2. If a straight line be bisected, and produced to any point, the square on the whole line thus produced and the square on the part of it produced are together double of the

square on half the line bisected and of the square on the line made up of the half and the part produced.

- 3. A given angle BAC is bisected; if CA is produced to G, and the angle BAG is bisected, prove that the two bisecting lines are at right angles to each other.
- 4. If two opposite sides of a quadrilateral are equal and parallel, the other two sides are equal and parallel, and the figure is a parallelogram.
- 5. The rectangle contained by the sum and difference of two lines is equivalent to the difference of the squares of those lines.
  - 6. To construct a square equivalent to a given triangle.
- 7. The area of a parallelogram is equal to the product of its base and altitude.

### 1882.

[Candidates may take either 1, 2, 3, and 4, or 1, 2, 3, and 5.]

- 1. To draw a straight line at right angles to a given straight line from a given point in the same.<sup>1</sup>
- 2. In every triangle, the square on the side subtending an acute angle is less than the squares on the sides containing that angle by twice the rectangle contained by either of these sides, and the straight line intercepted between the perpendicular let fall on it from the opposite angle and the acute angle.
- 3. The opposite sides of a parallelogram are equal to each other.
  - 4. Trisect a right angle.
- 5. From the extremities of the base of an isosceles triangle straight lines are drawn perpendicular to the sides: show that the angles made by these lines with the base are each equal to half the vertical angle.

<sup>&</sup>lt;sup>1</sup> Make and explain the construction as well as prove it.

- 2. Decline ambo, opus, domus, ille.
- 3. Compare *felix*, *similis*, *parvus*, *primus*, *vetus*. Write the ordinal numerals from one to ten.
- 4. The principal parts of the verbs from which the following forms are derived: vivite, cedentia, ejiceram, jussus, vestit.
- 5. Give the imperfect and perfect subjunctive active, and the present and perfect participle of fero, renio, pono.
- 6. Inflect the present indicative and subjunctive of eo, fero, possum.
- 7. The synopsis of *loquor* in the third person plural, indicative and subjunctive.
- 8. Give the different ways of expressing a purpose in Latin.

[In writing Latin words, mark the quantity of the penult in each.]

- 1. Write the genitive singular of friques, virus, nemus, limen; and the nominative singular of salutem, sitim, litore, silicis, vulnera, aethere, sulcis.
  - 2. Give the gender of the same nouns.
- 3. Write out in full the declension of aliquis, ingens, exsul, hic.
  - 4. Compare magnus, tristis, malus, nequam, proximus.
- 5. The principal parts of the verbs from which the following forms are derived: tenebat, andebat, cernimus, bibet, labatur, haerent.
- 6. Inflect the future indicative active of nosco and debeo, and the present and perfect subjunctive of morior and possum.
- 7. Write out in full the conjugation of fero in the active voice.
  - 8. What parts of the verb are formed from the perfect stem?

[In writing Latin words, mark the quantity of the penult in forms of more than two syllables.]

- 1. Decline in full princeps, major, nullus.
  What other words are declined like nullus?
- 2. Give the ablative singular and genitive plural of animal, lex, vir, nox, currus, frigus; and the genitive singular of caro, mos, ordo, cor, juventus, custos.
- 3. The gender of manus, sermo, pes, compes, fraus.
  What is the gender of nouns of the third declension ending in l? in x? in os?
  - 4. Compare fortis, difficilis, parvus, miser.
    Form and compare the corresponding adverbs.
- 5. The principal parts of the verbs from which the following forms are derived: peteretur, alunt, prachent, perculsum, abjectum, canit.
- 6. Inflect in the future indicative and in the present and imperfect subjunctive, cano, tueor, eo.
- 7. Write the synopsis in the indicative and subjunctive of *rolo* in the first person singular, and *loquor* in the second person singular.
  - 8. What classes of verbs take the genitive?

#### 1880.

[In writing Latin words, mark the quantity of the penult in forms of more than two syllables.]

- 1. Decline in full domus, deus, plus, duo.
- 2. The gender of *nubes*, *honor*, *dies*, *aetas*, *ratio*. Ablative singular and genitive plural of *navis*, *pars*, *princeps*.

- 3. Compare the adverbs prudenter, fortiter, acriter, parum. From what adjectives are they derived?
- 4. Give the nominative singular in full of quisque, quispiam, quisquis; give the meaning of each. When is the interrogative quis used, and when qui?
  - 5. The principal parts of nanciscor, pasco, pario, reor.
- 6. Write the synopsis of *capio* in the second person singular indicative and subjunctive active. Give the present of *jeci*, *cessi*, *novi*. From what two verbs can *tentum* come?
- 7. Write out in full the present indicative of *malo*, the imperative of *fero* (both voices), the nominative and genitive singular of the present participle of *eo*.
  - 8. Explain the subjunctives in the following sentences:—
    - (a) Facerem, si juberes.
    - (b) Utinam mortuus essem.
    - (c) Ne quis dixerit.
    - (d) Quis est quin videat.
    - (e) Laudavit quia hoc facerent.
    - (f) Petit, ut iis qui adfuerint credamus.

[In writing Latin words of more than two syllables, mark the quantity of the penult.]

- 1. Decline homo, dies, domus.
- 2. Decline qui, hic.
- 3. Give the synopsis in the first person singular indicative and subjunctive active of moneo, capio.
  - 4. Give in full the present indicative active of possum, fero.
  - 5. Principal parts of volo, do, fio, nosco, curro.

- 6. What are the different uses of the ablative case?
- 7. Explain the use of the modes in indirect discourse.
- 8. What is the stem of a noun? What kinds of stems belong to the third declension?

### 1882

[In writing Latin words of more than one syllable, mark the quantity of the penult.]

- 1. Give the synopsis in the third person singular indicative of habeo, capio.
- 2. What is the final letter of the stem in each of the four regular eonjugations?
- 3. Decline a neuter noun of each of the three declensions to which neuters may belong.
- 4. Give the nominative and genitive singular and the gender of the substantives in the following sentences; the nominative and genitive singular of all genders of the adjectives and pronouns; the principal parts of the verbs and participles. If a noun or verb is defective, or has different meanings in different forms, call attention to the fact:—
  - (a) Postquam consulatum perfecit, domum rediit.
  - (b) Milites in agrum Gallicum longo itinere duxit.
  - ~ (c) Miror te haec tulisse.
    - (d) Quod potuimus, egimus.
- 5. Name and illustrate by short Latin sentences the uses of the dative case.
  - 6. In what ways does the Latin express purpose?
  - 7. Use of the modes and tenses in conditional sentences.
  - 8. Explain the use of the gerundive.

[In writing Latin words, mark the quantity of the penult in those of more than two syllables.]

- 1. Decline pars, corpus, domus.
- 2. Decline idem, qui.
- 3. Give the synopsis of the third person singular indicative and subjunctive active of a verb of each of the four regular conjugations.
- 4. What are the tenses in common use of the verbs memini and aio respectively?
- 5. Under what circumstances can the dative be used to express the agent? When can relative clauses take the subjunctive?

In the following sentences tell where each word is made, with its construction or agreement; give the nominative and genitive singular and gender of each noun; the nominative and genitive singular in full of each adjective or pronoun; the comparison of any word which is in the comparative degree; the principal parts of each verb; and the reason for each instance of the subjunctive mode.

- a. Sency ille plus quam voluit perdidit.
- b. In fines porum mittebantur, ut auxilium ferrent.
- c. Odi : fus m vulgus et arceo.

d. Non tium perfectiset.
What dieto rei of meaning rei of meaning would be made by the substitution of vto rit in the last sentence? By the substitution of per. vi

# CAESAR.

### 1876.

1. Translate (B. G. II. 25):—

Caesar ab decimae legionis cohortatione ad dextrum cornu profectus, ubi suos urgeri signisque in unum locum collatis duodecimae legionis confertos milites sibi ipsos ad pugnam esse impedimento vidit; quartae cohortis omnibus centurionibus occisis signiferoque interfecto, signo amisso, reliquarum cohortium omnibus fere centurionibus aut vulneratis aut occisis, in his primopilo Publio Sextio Baculo, fortissimo viro, multis gravibusque vulneribus confecto, ut jam se sustinere non posset; reliquos esse tardiores et nonnullos ab novissimis deserto proelio excedere ac tela vitare; hostes neque a fronte ex inferiore loco subcuntes intermittere et al utroque latere instare; et rem esse in augusto vidit, nequ ullum esse subsidium, quod submitti posset: scuto ab novissimis uni militi detracto (quod ipse eo sine scuto venerat), in primam aciem processit centurionibusque nominatim  ${\ensuremath{\circ}}$ latis, reliquos cohortatus milites, signa inferre et appel-

laxare jussit, quo facilius gladiis uti possent. inanipulos

2. (a) Explain the subjunctives.

(b) Point out the co-ordinate conjunt;

# 1877.

Translate (B. G. III. 20): -

Eodem fere tempore Publius Crassus, pervenisset, quae pars, ut ante dictum escin Aquitaniam tudine et multitudine hominum ex tertia regionem latiaestimanda, cum intelligeret in his locis te Galliae est dum, ubi paucis ante annis Lucius Valcellum geren-

24.251. 1606過程 设计

legatus exercitu pulso interfectus esset, atque unde Lucius Manlius proconsul impedimentis amissis profugisset, non mediocrem sibi diligentiam adhibendam intelligebat. Itaque re frumentaria provisa, auxiliis equitatuque comparato, multis praeterea viris fortibus Tolosa et Narbone, quae sunt civitates Galliae provinciae finitimae his regionibus, nominatim evocatis, in Sontiatum fines exercitum introduxit. Cujus adventu cognito, Sontiates magnis copiis coactis equitatuque, quo plurimum valebant, in itinere agmen nostrum adorti primum equestre proclium commiserunt: deinde equitatu suo pulso atque insequentibus nostris, subito pedestres copias, quas in convalle in insidiis collocaverant, ostenderunt. Hi nostros disjectos adorti proclium renovarunt.

### 1878.

Translate (B. G. III. 26): -

Crassus equitum praefectos cohortatus ut magnis praemiis pollicitationibusque suos excitarent, quid fieri vellet ostendit. Illi, ut erat imperatum, eductis un cohortibus, quae praesidio castris relictae intritae ab labore erant, et longiore itinere circumductis ne ex hostium castris conspici possent, omnium oculis mentibusque ad pugnam intentis, celeriter ad eas quas diximus munitiones pervenerunt, atque his perruptis prius in hostium castris constiterunt quam plane ab his videri aut quid rei gereretur cognosci posset. Tum vero clamore ab ea parte audito nostri redintegratis viribus, quod plerumque in spe victoriae accidere consuevit, acrius impugnare coeperunt. Hostes undique circumventi desperatis omnibus rebus se per munitiones dejicere et fuga salutem petere intenderunt. Quos equitatus apertissimis campis consectatus ex milium 1, numero, quae ex Aquitania Cantabrisque convenisse constabat, vix quarta parte relicta multa nocte se in castra recepit.

# 1. Translate (B. G. I. 38): -

Cum tridui viam processisset, nuntiatum est ci Ariovistum cum suis omnibus copiis ad occupandum Vesontionem, quod est oppidum maximum Sequanorum, contendere triduique viam a suis finibus profecisse. Id ne accideret, magnopere sibi praecavendum Caesar existimabat. Namque omnium rerum, quae ad bellum usui erant, summa erat in eo oppido facultas, idque natura loci sic muniebatur, ut magnam ad ducendum bellum daret facultatem, propterea quod flumen Dubis ut circino circumductum paene totum oppidum cingit; reliquum spatium, quod est non amplius pedum pe, qua flumen intermittit, mons continet magna altitudine, ita ut radices montis ex utraque parte ripae fluminis contingant.

2. What kind of a pronoun is *sibi?* Construction of *sibi*, *palum*, *altitudine*. Write the numeral represented by pc in the form here required.

# 3. Translate (B. G. IV. 5):—

Est enim hoc Gallicae consuetudinis, uti et viatores etiam invitos consistere cogant et, quod quisque eorum de quaque re audierit aut cognoverit, quaerant, et mercatores in oppidis vulgus circumsistat, quibusque ex regionibus veniant quasque ibi res cognoverint, pronuntiare cogant. His rebus atque auditionibus permoti de summis saepe rebus consilia incunt, quorum cos e vestigio poenitere necesse est, cum incertis rumoribus serviant, et plerique ad voluntatem corem ficta respondeant.

4. To what does how refer (line 1)? What does que in quibusque connect (line 1)? Gender of rulgus. What use of the genitive in consuctudinis, quorum?

# 1. Translate (B. G. I. 34): -

Quamobrem placuit ei, ut ad Ariovistum legatos mitteret, qui ab eo postularent, uti aliquem locum medium utriusque colloquio diceret: velle sese de republica et summis utriusque rebus cum eo agere. Ei legationi Ariovistus respondit: si quid ipsi a Caesare opus esset, sese ad eum venturum fuisse; si quid ille se velit, illum ad se venire oportere. Practerea se neque sine exercitu in eas partes Galliae venire audere, quas Caesar possideret, neque exercitum sine magno commeatu atque molimento in unum locum contrahere posse. Sibi autem mirum videri, quid in sua Gallia, quam bello vicisset, aut Caesari aut omnino populo Romano negotii esset.

2. Who was Ariovistus? To whom does ei refer (line 1)? What was the occasion of this embassy? Change neque exercitum sine . . . negotii esset to the oratio recta.

# 3. Translate (B. G. III. 10): —

Erant hae difficultates belli gerendi, quas supra ostendimus, sed multa Caesarem tamen ad id bellum incitabant: injuriae retentorum equitum Romanorum, rebellio facta post deditionem, defectio datis obsidibus, tot civitatum conjuratio, imprimis, ne hae parte neglecta reliquae nationes sibi idem licere arbitrarentur. Itaque cum intellegeret omnes fere Gallos novis rebus studere et ad bellum mobiliter celeriterque excitari, omnes autem homines natura libertati studere et condicionem servitutis odisse, priusquam plures civitates conspirarent, partiendum sibi ac latius distribuendum exercitum putavit.

4. What is the construction of *idem?* Upon what does *cum intellegeret* depend? Why does *cum* require the subjunctive here?

# 1. Translate (B. G. II. 11):—

Ea re constituta secunda vigilia magno cum strepitu ac tumultu castris egressi nullo certo ordine neque imperio, cum sibi quisque primum itineris locum peteret et domum pervenire properaret, fecerunt, ut consimilis fugae profectio videretur. Hac re statim Caesar per speculatores cognita insidias veritus, quod, qua de causa discederent, nondum perspexerat, exercitum equitatumque castris continuit. Prima luce confirmata re ab exploratoribus omnem equitatum, qui novissimum agmen moraretur, praemisit.

- 2. (a) Describe the vigiliae.
  - (b) Explain the subjunctives discederent and moraretur.
  - (c) Give the time, place, and manner of Cæsar's death.

# 3. Translate (B. G. IV. 8):—

Ad haec quae visum est Caesar respondit; sed exitus fuit orationis: "Sibi nullam cum his amicitiam esse posse, si in Gallia remanerent; neque verum esse, qui suos fines tueri non potuerint, alienos occupare; neque ullos in Gallia vacare agros, qui dari tantae praesertim multitudini sine injuria possint; sed licere, si velint, in Ubiorum finibus considere, quorum sint legati apud se et de Suevorum injuriis querantur et a se auxilium petant: hoe se Ubiis imperaturum."

4. (a) Change the words of Cæsar to direct discourse.

### 1882.

# 1. Translate (B. G. I. 36): -

Ad haec Ariovistus respondit: "Jus esse belli, ut, qui vieissent, ils. quos vieissent, quemadmodum vellent, imperarent: item populum Romanum vietis non ad alterius praescriptum, sed ad suum arbitrium imperare consuesse. Si ipse populo Romano non praescriberet, quemadmodum

suo jure uteretur; non oportere sese a populo Romano in suo jure impediri. Aeduos sibi, quoniam belli fortunam tentassent et armis congressi ac superati essent, stipendiarios esse factos. Magnam Caesarem injuriam facere, qui suo adventu vectigalia sibi deteriora faceret. Aedui, se obsides redditurum non esse, neque iis neque corum sociis injuria bellum illaturum, si in co manerent, quod convenisset, stipendiumque quotannis penderent; si id non fecissent, longe iis fraternum nomen populi Romani abfuturum. Quod sibi Caesar denuntiaret se Aeduorum injurias non neglecturum; neminem secum sine sua pernicie contendisse. Cum vellet, congrederetur; intellecturum, quid invicti Germani, exercitatissimi in armis, qui inter annos quatuordecim tectum non subissent, virtute possent."

- 2. Change the speech to direct discourse.
- 3. Translate (B. G. III. 16):—

Quo proclio bellum Venetorum totiusque orae maritimae confectum est. Nam cum omnis juventus, omnes etiam gravioris aetatis, in quibus aliquid consilii aut dignitatis fuit, co convenerant: tum navium quod ubique fuerat, unum in locum coëgerant: quibus amissis reliqui neque quo se reciperent neque quemadmodum oppida defenderent, habebant. Itaque se suaque omnia Caesari dediderunt. In quos co gravius Caesar vindicandum statuit, quo diligentius in reliquum tempus e barbaris jus legatorum conservaretur. Itaque omni senatu necato reliquos sub corona vendidit.

4. How long and by what authority was Casar in command in Gaul?

Write a brief life of Julius Cæsar.

Translate any two of the following passages: -

- 1. Dum haec in conloquio geruntur, Caesari nuntiatum est equites Ariovisti propius tumulum accedere et ad nostros adequitare, lapides telaque in nostros conicere. Caesar loquendi finem facit seque ad suos recipit suisque imperavit, ne quod omnino telum in hostes reicerent. Nam etsi sine ullo periculo legionis delectae cum equitatu proclium fore videbat, tamen committendum non putabat, ut pulsis hostibus dici posset cos ab se per fidem in conloquio circumventos. Posteaquam in vulgus militum elatum est, qua adrogantia in conloquio Ariovistus usus omni Gallia Romanis interdixisset, impetumque in nostros eius equites fecissent, eaque res conloquium ut diremisset, multo maior alacritas studiumque pugnandi maius exercitui iniectum est. (B. G. I. 46.)
- 2. Eodem fere tempore Caesar, etsi prope exacta iam aestas erat, tamen, quod omni Gallia pacata Morini Menapiique supererant, qui in armis essent neque ad cum umquam legatos de pace misissent, arbitratus id bellum celeriter confici posse co exercitum adduxit; qui longe alia ratione ac reliqui Galli bellum gerere coeperunt. Nam quod intellegebant maximas nationes, quae proelio contendissent, pulsas superatasque esse, continentesque silvas ac paludes habebant, eo se suaque omnia contulerunt. Ad quarum initium silvarum cum Caesar pervenisset castraque munire instituisset neque hostis interim visus esset, dispersis in opere nostris subito ex omnibus partibus silvae evolaverunt et in nostros impetum fecerunt. Nostri celeriter arma ceperunt eosque in silvas repulerunt et conpluribus interfectis longius inpeditioribus locis secuti paucos ex suis deperdiderunt. — (B. G. III. 28.)
  - 3. Quibus rebus Romam nuntiatis tantus repente terror

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invasit, ut, cum Lentulus consul ad aperiendum aerarium venisset ad pecuniam Pompeio ex senatusconsulto proferendam, protinus aperto sanctiore aerario ex urbe profugeret. Caesar enim adventare iam iamque et adesse eius couites falso nuntiabantur. Hunc Marcellus collega et plerique magistratus consecuti sunt. Cn. Pompeius pridie eius dici ex urbe profectus iter ad legiones habebat, quas a Caesare acceptas in Apulia hibernorum causa disposuerat. Delectus circa urbem intermittuntur: nihil citra Capuam tutum esse omnibus videtur. Capuae primum sese confirmant et colligunt delectumque colonorum, qui lege Iulia Capuam deducti erant, habere instituunt; gladiatoresque, quos ibi Caesar in ludo habebat, ad forum deductos Lentulus spe libertatis confirmat atque his equos adtribuit et se sequi iussit; quos postea monitus ab suis, quod ea res omnium iudicio reprehendebatur, circum familias conventus Campaniae custodiae causa distribuit. — (B. C. I. 14.)

4. Itaque duabus legionibus missis in ulteriorem Hispaniam cum Q. Cassio, tribuno plebis, ipse sexcentis equitibus magnis itineribus progreditur edictumque praemittit, ad quam diem magistratus principesque omnium civitatum sibi esse praesto Cordubae vellet. Quo edicto tota provincia pervulgato nulla fuit civitas, quin ad id tempus partem senatus Cordubam mitteret, non civis Romanus paulo notior, quin ad diem conveniret. Simul ipse Cordubae conventus per se portas Varroni clausit, custodias vigiliasque in turribus muroque disposuit, cohortes duas, quae colonicae appellabantur, cum eo casu venissent, tuendi oppidi causa apud se retinuit. Isdem diebus Carmonenses, quae est longe firmissima totius provinciae civitas, deductis tribus in arcem oppidi cohortibus a Varrone praesidio per se cohortes eiecit portasque praeclusit. — (B. C. II. 19.)

### CICERO.

### 1876.

# 1. Translate (Cic. Cat. II. 4): -

Unum etiam nunc concedam: exeant, proficiseantur, ne patiantur desiderio sui Catilinam miserum tabescere. Demonstrabo iter: Aurelia via profectus est; si accelerare volent, ad vesperam consequentur. O fortunatam rem publicam, si quidem hanc sentinam hujus urbis ejecerit! Uno mehercule Catilina exhausto, relevata mihi et recreata res publica videtur.

- 2. (a) What was the effect of Cicero's first oration upon Catiline? Location of the via Aurelia.
  - (b) Original meaning of sentina.
- (c) Give the construction of desiderio, sui, via, rem publicam.

# 3. Translate (Cic. Cat. IV. 5): -

At vero C. Caesar intelligit legem Semproniam esse de civibus Romanis constitutam, qui autem rei publicae sit hostis, cum civem esse nullo modo posse; denique ipsum latorem legis Semproniae injussu populi poenas rei publicae dependisse.

- 4. (a) Explain the mood of sit, posse. What is the antecedent of qui?
  - (b) Why are cirem and latorem in the accusative?
  - (c) What mode of punishment did Cæsar advise?
  - (d) Who proposed the lex Sempronia referred to here?

# 5. Translate (Cic. Imp. Pomp. 7): -

Est igitur humanitatis vestrae, magnum corum civium numerum calamitate prohibere, sapientiae, videre multorum civium calamitatem a re publica sejunctam esse non posse.

6. The subject of est. Explain the construction of sapientiae.

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### 1877.

# 1. Translate (Cic. Cat. II. 6):-

At etiam sunt qui dicant. Quirites, a me in exsilium ejectum esse Catilinam: quod ego si verbo adsequi possem, istos ipsos ejicerem, qui hace loquuntur. Homo enim videlicet timidus aut etiam permodestus vocem consulis ferre non potuit; simul atque ire in exsilium jussus est, paruit: Quid? ut hesterno die, Quirites, cum domi meae paene interfectus essem, senatum in acdem Jovis Statoris convocavi, rem omnem ad patres conscriptos detuli: quo cum Catilina venisset, quis cum senator appellavit?

- 2. (a) Account for the mood and tense of dicant, ejicerem, interfectus essem. Why is the preposition used with me (line 1)? What does hesterno die qualify?
- (b) The location of the temple of Jupiter Stator. Why was it selected for this meeting of the senate?

# 3. Translate (Cic. Cat. IV. 6): —

Etenim quaero, si quis pater familias, liberis suis a servo interfectis, uxore occisa, incensa domo, supplicium de servo non quam acerbissimum sumpserit, utrum is clemens ac misericors an inhumanissimus et crudelissimus esse videatur?

- 4. (a) In what case is familias? What does si connect? what utrum?
  - (b) Construction of liberis, servo (line 1), clemens.

# 5. Translate (Cic. Arch. V.): -

Census nostros requiris scilicet: est enim obscurum proximis censoribus hunc cum clarissimo imperatore L. Lucullo apud exercitum fuisse, superioribus cum codem quaestore fuisse in Asia, primis Julio et Crasso nullam populi partem esse censam.

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- 6. (a) What uses of the ablative in this passage? With what does obscurum agree?
- (b) How often was the census held? What were the duties of a quaestor?

### 1878.

# 1. Translate (Cic. Cat. I. 6): -

Quod ego praetermitto et facile patior sileri, ne in hac civitate tanti facinoris immanitas aut exstitisse aut non vindicata esse videatur. Praetermitto ruinas fortunarum tuarum, quas omnes impendere tibi proximis Idibus senties: ad illa venio, quae non ad privatam ignominiam vitiorum tuorum, non ad domesticam tuam difficultatem ac turpitudinem, sed ad summan rem publicam atque ad omnium nostrum vitam salutemque pertinent.

- 2. (a) Explain the subjunctive videatur.
- (b) What days of the month were the Kalends, the Nones, and the Ides? How were the days numbered from these three points? Express in Latin October 21st.

# 3. Translate (Cic. Cat. III. 7):—

Omnia norat, omnium aditus tenebat; appellare, temptare, sollicitare, poterat, audebat; erat ei consilium ad facinus aptum, consilio autem neque manus neque lingua deerat. Jam ad certas res conficiendas certos homines delectos ac descriptos habebat; neque vero, cum aliquid mandarat, confectum putabat: nihil erat quod non ipse obiret, occurreret, vigilaret, laboraret; frigus, sitim, famem ferre poterat.

- 4. (a) Where are the forms norat and poterat found? Construction of ei, consilio. Explain the form sitim.
- (b) What is asyndeton? Give an example from this passage.

# 5. Translate (Cic. Arch. I.): -

Quod si hace vox, hujus hortatu praeceptisque conformata, nonnullis aliquando saluti fuit, a quo id accepimus quo ceteris opitulari et alios servare possemus, huic profecto ipsi, quantum est situm in nobis, et opem et salutem ferre debemus.

- 6. (a) Give the antecedents of a quo and of quo.
- (b) What was the charge against Archias? What claim had he to Cicero's services?

#### 1879.

[One passage may be omitted.]

# 1. Translate (Cic. Cat. II. 1): -

Sine dubio perdidimus hominem magnificeque vicimus, cum illum ex occultis insidiis in apertum latrocinium conjecimus. Quod vero non cruentum mucronem, ut voluit, extulit, quod vivis nobis egressus est, quod ei ferrum e manibus extorsimus, quod incolumes cives, quod stantem urbem reliquit, quanto tandem illum maerore esse afflictum et profligatum putatis? Jacet ille nunc prostratusque est et se perculsum atque abjectum esse sentit et retorquet oculos profecto saepe ad hanc urbem, quam e suis faucibus ereptam esse luget: quae quidem mihi lactari videtur, quod tantam pestem evomuerit forasque projecerit.

- 2. (a) Upon what does quod...extulit depend? What is the object of sentit? Why foras and not foris? What is the subject of projectit? Why is it subjuntive?
- (b) Who was Cicero's colleague in the consulship, and how was he affected toward Catiline?
  - 3. Translate (Cic. Imp. Pomp. 20): -

Etenim talis est vir, ut nulla res tanta sit ac tam difficilis, quam ille non et consilio regere et integritate tueri et virtute 36 CICERO.

conficere possit. Sed in hoc ipso ab co vehementissime dissentio, quod quo minus certa est hominum ac minus diuturna vita, hoc magis res publica, dum per deos immortales licet, frui debet summi viri vita atque virtute.

- 4. (a) What kind of a genitive is hominum? What distinction in meaning between talis and tantus? What does quod connect? Construction of hoc (line 5), vita (line 6).
  - (b) The object of this oration. Its date.

# 5. Translate (Cic. Marcell. 7): -

Nam quis est omnium tam ignarus rerum, tam rudis in re publica, tam nihil umquam nec de sua nec de communi salute cogitans, qui non intelligat tua salute contineri suam et ex unius tua vita pendere omnium? Equidem de te dies noctesque, ut debeo, cogitans casus dumtaxat humanos et incertos eventus valetudinis et naturae communis fragilitatem extimesco, doleoque, cum res publica immortalis esse debeat, cam in unius mortalis anima consistere.

6. Construction of rerum, unius (line 4), omnium (line 4), dies. Is rudis ever limited by a genitive? Explain the subjunctive intelliget. Upon what does cum...debeat depend? Why is the subjunctive required? What difference in meaning between timeo and extimesco?

# 7. Translate (Cic. Mil. 34): --

Valeant, inquit, valeant cives mei; sint incolumes, sint florentes, sint beati; stet haec urbs pracelara mihique patria carissima, quoquo modo erit merita de me; tranquilla re publica mei cives, quoniam mihi cum illis non licet, sine me ipsi, sed propter me tamen perfruantur; ego cedam atque abibo: si mihi bona re publica frui non licuerit, at carebo mala, et quam primum tetigero bene moratam et liberam civitatem, in ea conquiescam.

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- 8. (a) Where is the form lieuerit found? conquiescum? Give the construction of mihi (line 2), re publica (line 6), cives (line 4), mala, quam.
  - (b) What was Cicero's reason for defending Milo?

#### 1880.

[One passage may be omitted.]

# 1. Translate (In Cat. III. 8):—

Itaque illorum responsit tum et ludi per decem dies facti sunt neque res ulla quae ad placandos deos pertineret praetermissa est, idemque jusserunt simulacrum Jovis facere majus et in excelso collocare et contra atque antea fuerat ad orientem convertere; ac se sperare dixerunt, si illud signum, quod videtis, solis ortum et forum curiamque conspiceret, fore ut ea consilia, quae clam essent inita contra salutem urbis atque imperii, illustrarentur, ut a senatu populoque Romano perspici possent.

- 2. (a) What kind of a genitive is *illorum*? Explain the ablative responsis. What is the use of et (line 1)? In what case is *idem*? To what is it here equivalent? Why is videtis not subjunctive?
- (b) Indicate the relative positions of the Palatine hill, the Capitoline hill, the Forum and the Campus Martius.

# 3. Translate (Pro Arch. VIII.):—

Quis nostrum tam animo agresti ac duro fuit, ut Roscii morte nuper non commoveretur? Qui cum esset senex mortuus, tamen propter excellentem artem ac venustatem videbatur omnino mori non debuisse. Ergo ille corporis motu tantum amorem sibi conciliarat a nobis omnibus: nos animorum incredibiles motus celeritatemque ingeniorum neglegemus?

- 4. (a) Why not quis nostri? What kind of an ablative is animo? Explain the form conciliarat.
- (b) Why does Cicero introduce the example of Roscius? Tell what you know about Roscius and his relations to Cicero.

# 5. Translate (De Imp. Pomp. XII.): -

Sociis ego nostris mare per hos annos clausum fuisse dicam, cum exercitus vestri numquam a Brundisio nisi hieme summa transmiserint? Qui ad vos ab exteris nationibus venirent captos querar, cum legati populi Romani redempti sint? Mercatoribus tutum mare non fuisse dicam, cum duodecim secures in praedonum potestatem pervenerint?

- 6. (a) Upon what does *cum* . . . *transmiserint* depend? The antecedent of *qui*. The meaning of *duodecim secures*. What are the contrasted words in each sentence?
- (b) Why were the armies obliged to cross over from Brundisium in the winter? Where was Brundisium?

# 7. Translate (Pro. Lig. IV.):—

Hoc egit civis Romanus ante te nemo: externi isti mores, usque ad sanguinem incitari odio, aut levium Graccorum aut immanium barbarorum. Nam quid agis aliud? Romae ne sit? Ut domo careat? Ne cum optimis fratribus, ne cum hoc T. Broccho, avunculo, ne cum ejus filio consobrino suo, ne nobiscum vivat? Ne sit in patria? Num est? Num potest magis carere his omnibus quam caret?

- 8. (a) What does the genitive Graceorum limit? Why hoe (line 5) and not illo? What answer is expected to the question Num est? To whom does ejus refer? To whom suo?
- (b) Who brought the accusation against Ligarius? Where and before whom was the case argued? How was it decided?

#### [One passage may be omitted.]

# 1. Translate (In Cat. III. 10): -

In hoc autem uno post hominum memoriam maximo crudelissimoque bello, quale bellum nulla umquam barbaria cum sua gente gessit, quo in bello lex haec fuit a Lentulo, Catilina, Cethego, Cassio constituta, ut omnes, qui salva urbe salvi esse possent, in hostium numero ducerentur, ita me gessi, Quirites, ut salvi omnes conservaremini, et cum hostes vestri tantum civium superfuturum putassent, quantum infinitae caedi restitisset, tantum autem urbis, quantum flamma obire non potuisset, et urbem et cives integros incolumesque servavi.

- 2. (a) Give the principal verbs of this sentence. Upon what does quantum . . . potaisset depend? What explains the meaning of lex haec? Explain the subjunctives possent, putassent.
- (b) Why did Cicero go into exile? How long was this after his consulship?

# 3. Translate (Pro Marcell. I): -

Diuturni silenti, patres conscripti, quo eram his temporibus usus, non timore aliquo, sed partim dolore, partim verecundia finem hodiernus dies attulit, idemque initium quae vellem quaeque sentirem meo pristino more dicendi: tantam enim mansuetudinem, tam inusitatam inauditamque elementiam, tantum in summa potestate rerum omnium modum, tam denique incredibilem sapientiam ac paene divinam tacitus praeterire nullo modo possum.

- 1. (a) With what does idem agree? The construction of the antecedent of quae. Why the pluperfect tense in cram usus?
- (b) What moved Cicero to deliver this oration? What was the fate of Marcellus?

40 CICERO.

# 5. Translate (Pro Arch. III.): -

Hae tanta celebritate famae cum esset jam absentibus notus, Romam venit Mario consule et Catulo. Nactus est primum consules eos, quorum alter res ad scribendum maximas, alter cum res gestas tum etiam studium atque aures adhibere posset. Statim Luculli, cum praetextatus etiam tum Archias esset, eum domum suam receperunt.

6. Explain fully the meaning of the sentence. *Nactus est* ... *posset*. Why is the subjunctive required? Why alter, and not alius?

# 7. Translate (Pro Lig. XII.): -

Nihil est tam populare quam bonitas, nulla de virtutibus tuis plurimis nec admirabilior nec gratior misericordia est. Homines enim ad deos nulla re propius accedunt quam salutem hominibus dando; nihil habet nec fortuna tua majus quam ut possis, nec natura melius quam ut velis servare quam plurimos. Longiorem orationem causa forsitan postulet, tua certe natura breviorem.

8. What determines the gender of nulla? With what does nullus agree? Why are the two negatives nulla... nec not equivalent to an affirmative?

#### 1882.

[Any two passages may be omitted.]

# 1. Translate (Cat. II. 6):-

At etiam sunt qui dicant, Quirites, a me in exsilium ejectum esse Catilinam: quod ego si verbo adsequi possem, istos ipsos ejicerem, qui haec loquuntur. Homo enim videlicet timidus aut etiam permodestus vocem consulis ferre non potuit; simul atque ire in exsilium jussus est, paruit: quid? Ut hesterno die, Quirites, cum domi meae paene interfectus

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essem, senatum in aedem Jovis Statoris convocavi, rem omnem ad patres conscriptos detuli: quo cum Catilina venisset, quis eum senator adpellavit? Quis salutavit? Quis denique ita aspexit ut perditum civem ac non potius ut importunissimum hostem?

2. Explain the uses of the subjunctive mode in this passage. What different meanings has aedes in the singular and plural? Why is the pluperfect tense used in venisset (line 8)? Could qui be substituted for quis in the expression quiseum senator adpellavit?

# 3. Translate (Cat. IV. 5):—

At vero C. Caesar intelligit legem Semproniam esse de civibus Romanis constitutam; qui autem rei publicae sit hostis, eum civem nullo modo esse posse: denique ipsum latorem Semproniae legis jussu populi poenas rei publicae dependisse. Idem ipsum Lentulum, largitorem et prodigum, non putat, cum de pernicie populi Romani, exitio hujus urbis tam acerbe, tam crudeliter cogitarit, etiam appellari posse popularem.

4. Who is meant by latorem legis Semproniae? Criticise the accuracy of the historical statement in lines 3 and 4. How would Casar have disposed of the convicted conspirators?

# 5. Translate (Arch. 8):—

Quod si ipsi hace neque attingere neque sensu nostro gustare possemus, tamen ca mirari deberemus, etiam cum in aliis videremus. Quis nostrum tam animo agresti ac duro fuit, ut Roscii morte nuper non commoveretur? Qui cum esset senex mortuus, tamen propter excellentem artem ac venustatem videbatur omnino mori non debuisse. Ergo ille corporis motu tantum amorem sibi conciliarat a nobis omnibus: nos animorum incredibiles motus celeritatemque ingeniorum negligemus?

6. Why is nostrum used (line 3) in preference to nostri? How can we tell from the form of the dependent sentence whether commoveretur denotes purpose or result? Give the ablative singular of excellentem and incredibiles.

# 7. Translate (Marcell. 6): -

Quare gaude tuo isto tam excellenti bono, et fruere cum fortuna et gloria tum etiam natura et moribus tuis; ex quo quidem maximus est fructus jucunditasque sapienti. Cetera cum tua recordabere, etsi persaepe virtuti, tamen plerumque felicitati tuae gratulabere: de nobis, quos in re publica tecum simul esse voluisti, quoties cogitabis, toties de maximis tuis beneficiis, toties de incredibili liberalitate, toties de singulari sapientia tua cogitabis.

8. Give construction of bono and fortuna. What is the difference in meaning between ceterus and alius? What kind of a verb is recordabere? Give its participles with their meaning.

# 9. Translate (Manil. 15): -

Jam accepta in Ponto calamitate ex eo proclio, de quo vos paulo ante invitus admonui, cum socii pertimuissent, hostium opes animique crevissent, satis firmum praesidium provincia non haberet, amisissetis Asiam, Quirites, nisi ad ipsum discrimen ejus temporis divinitus Cn. Pompeium ad eas regiones fortuna populi Romani attulisset. Hujus adventus et Mithridatem insolita inflammatum victoria continuit et Tigranem magnis copiis minitantem Asiae retardavit.

10. What would be the imperfect subjunctive of accepta? How would it differ in form from the imperfect subjunctive of venio? Pompey's full name was Gnaeus Pompeius Strabo; — what did the Romans call each of these names?

CICERO. 43

#### 1883.

# [Any two passages may be omitted.]

# 1. (a) Translate (in L. Catilinam Prima, XI.):—

"M. Tulli, quid agis? tune eum, quem esse hostem comperisti, quem ducem belli futurum vides, quem expectari imperatorem in castris hostium sentis, auctorem sceleris, principem conjurationis, evocatorem servorum et civium perditorum, exire patiere, ut abs te non emissus ex urbe, sed immissus in urbem esse videatur? nonne hunc in vincula duci, non ad mortem rapi, non summo supplicio mactari imperabis? Quid tandem impedit te? Mosne maiorum? At persaepe etiam privati in hac re publica perniciosos civis morte multarunt. An leges, quae de civium Romanorum supplicio rogatae sunt? At nunquam in hac urbe ii, qui a re publica defecerunt, civium iura tenuerunt. An invidiam posteritatis times? Praeclaram vero populo Romano refers gratiam, qui te, hominem per te cognitum, nulla commendatione majorum, tam mature ad summum imperium per omnis honorum gradus extulit, si propter invidiam aut alicuius periculi metum salutem civium tuorum negligis."

(b) Give a brief sketch of Cieero's life up to the time of the delivery of this oration. What political offices had he successively held, as suggested by the words per omnis honorum gradus (line 16), what in general were the duties of these offices, and at what age did he reach the consulship, as suggested by the words tam mature ad summum imperium (line 16).

# 2. (a) Translate (Pro Archia, III.): -

Hae tanta celebritate famae cum esset iam absentibus notus, Romam venit, Mario consule et Catulo. Nactus est primum consules cos, quorum alter res ad scribendum maximas, alter cum res gestas, tum etiam studium atque auris adhibere posset. Statim Luculli, cum praetextatus etiam tum Archias esset, cum [in] domum suam receperunt. Sed etiam hoc non solum ingeni ac literarum, verum etiam naturae atque virtutis, ut domus, quae huius adolescentiae prima fuerit, cadem esset familiarissima senectuti. Erat temporibus illis iucundus Q. Metello, illi Numidico, et eius Pio filio: audiebatur a M. Aemilio: vivebat cum Q. Catulo, et patre, et filio.

- (b) Mario consule et Catulo (line 2) about what time was this? Res ad scribendum maximus (line 3) mention some of them.
- (c) Explain the expression cum praetextatus... Archius esset (line 6). What does it imply as to the age of Archias at the time when he came to Rome? Why is Quintus Metellus called ille Numidicus (line 10)? Give the present of nactus est. Explain the subjunctives in the passage.

# 3. (a) Translate (Pro M. Marcello, VI.): -

Atque huius quidem rei M. Marcello sum testis. Nostri enim sensus, ut in pace semper, sie tum etiam in bello congruebant. Quotics ego eum et quanto cum dolore vidi, cum insolentiam certorum hominum, tum etiam ipsius victoriae ferocitatem extimescentem! Quo gratior tua liberalitas, C. Caesar, nobis, qui illa vidimus, debet esse. Non enim iam causae sunt inter se, sed victoriae comparandae. Vidimus tuam victoriam proeliorum exitu terminatam; gladium vagina vacuum in urbe non vidimus. Quos amisimus eivis, eos Martis vis perculit, non ira victoriae, ut dubitare debeat nemo, quin multos, si fieri posset, C. Caesar ab inferis excitaret, quoniam ex eadem acie conservat, quos potest.

(b) What part of speech is nostri (line 1), and how is this determined? From what kind of a verb does the sc

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show extimescentem (line 5) to be? What figure of speech in Martis vis (line 10)? Why is quin (line 11) employed here rather, for example, than quominus? What does ut connect (line 10), quin (line 11), si (line 11), and quoniam (line 12)? Explain the uses of the subjunctive mode in the passage.

# 4. (a) Translate (Pro Lege Manilia, XXIII.): -

Ora maritima, Quirites, Cn. Pompeium non solum propter rei militaris gloriam, sed etiam propter animi continentiam requisivit. Videbat enim praetores locupletari quotannis pecunia publica, praeter paucos, neque cos quidquam aliud assequi classium nomine, nisi ut detrimentis accipiendis maiore affici turpitudine videremur. Nune qua cupiditate homines in provincias, quibus iacturis, quibus conditionibus proficiseantur, ignorant videlicet isti, qui ad unum deferenda esse omnia non arbitrantur: quasi vero Cn. Pompeium non cum suis virtutibus, tum etiam alienis vitiis magnum esse videamus? Quare nolite dubitare, quin huic uni credatis omnia, qui inter tot annos unus inventus sit, quem socii in urbes suas cum exercitu venisse gaudeant.

- (b) Explain the uses of subjunctive mode in the passage. What other ways of expressing a prohibition than the one employed in *nolite dubitare* (line 11)? What other constructions after verbs of rejoicing than the accusative with the infinitive, as in quem . . . venisse . . . gaudeant (line 13)?
- (c) State briefly the subject of this oration and the circumstances under which it was delivered.

#### VERGIL AND OVID.

1876.

1. Translate (Verg. Æn. V. 604-612): —

Hie primum Fortuna fidem mutata novavit
Dum variis tumulo referunt sollemnia ludis
Irim de caelo misit Saturnia Juno
Iliacam ad classem, ventosque adspirat cunti,
Multa movens, necdum antiquum saturata dolorem
Illa, viam celerans per mille coloribus arcum,
Nulli visa cito decurrit tramite virgo.
Conspicit ingentem concursum, et litora lustrat,
Desertosque videt portus classemque relictam.

- 2. (a) Explain the tense of referent. What does dum connect? Explain the form Irim. Give the nominative singular of eunti.
- (b) Why was Juno hostile to the Trojans? What calamity did she now bring upon them?
- 3. (a) Divide the last two lines into feet, marking the quantity of each syllable.
- (b) Account for the quantity of the final syllables in variis, tumulo, de, adspirat.
- (c) When is c final long? Mark the quantity of the vowels in *fielium*, mel. Distinguish between *idem* and *īdem*, fūgit and fūgit.

[6 may be substituted for either 4 or 5.]

4. Translate (Verg. Ecl. X. 64-68): -

Non illum nostri possunt mutare labores; Nee si frigoribus mediis Hebrumque bibamus, Sithoniasque nives hiemis subeamus aquosae, Nec si, cum moriens alta liber aret in ulmo, Aethiopum versemus ovis subsidere Cancri.

- 5. Translate (Verg. Geor. I. 383–387): —

  Jam varias pelagi volucres, et quae Asia circum

  Dulcibus in stagnis rimantur prata Caystri,

  Certatim largos umeris infundere rores,

  Nunc caput objectare fretis, nunc currere in undas,

  Et studio incassum videas gestire lavandi.
- 6. Translate (Ovid, Met. II. 319-324): At Phaëthon, rutilos flamma populante capillos, Volvitur in praeceps, longoque per aëra tractu Fertur, ut interdum de caelo stella sereno Etsi non cecidit, potuit cecidisse videri. Quem procul a patria diverso maximus orbe Excipit Eridanus, fumantiaque abluit ora.

- 1. Translate (Verg. Æn. III. 492–499): —

  Hos ego digrediens lacrimis affabar obortis:

  Vivite felices, quibus est fortuna peracta

  Jam sua; nos alia ex aliis in fata vocamur.

  Vobis parta quies; nullum maris acquor arandum

  Arva neque Ausoniae semper cedentia retro

  Quaerenda; effigiam Xanthi Trojamque videtis,

  Quam vestrae fecere manus melioribus, opto,

  Auspiciis, et quae fuerit minus obvia Graiis.
- 2. (a) To what does sna relate? What country was called Ausonia? Explain the meaning of the expression, semper cedentia retro.
- (b) At what places had Eneas landed before his arrival at Chaonia, and where had he attempted settlements?
- 3. (a) Divide the last two lines into feet, marking the quantity of each syllable.

- (b) What is the quantity of the final syllables in mare, mari, maria, illas, nubes, cornu, quo; and of the penultimate syllables in traho, fiam, bibi?
  - (c) When is is final long?

[6 may be substituted for either 4 or 5.]

# 4. Translate (Verg. Ecl. III. 32-39): -

De grege non ausim quicquam deponere tecum; Est mihi namque domi pater, est injusta noverea; Bisque die numerant ambo pecus, alter et haedos. Verum, id quod multo tute ipse fatebere majus, Insanire libet quoniam tibi, pocula ponam Fagina, caelatum divini opus Alcimedontis. Lenta quibus torno facile superaddita vitis Diffusos hedera vestit pallente corymbos.

# Translate (Verg. Geor. I. 493-497): — Seilicet et tempus veniet, eum finibus illis Agricola, incurvo terram molitus aratro, Exesa inveniet scabra robigine pila, Aut gravibus rastris galeas pulsabit inanes, Grandiaque effosis mirabitur ossa sepulchris.

# 6. Translate (Ovid, Met. III. 28-34):— Silva vetus stabat nulla violata securi, Et specus in medio, virgis ac vimine densus, Efficiens humilem lapidum compagibus arcum, Uberibus fecundus aquis, ubi conditus antro Martius anguis crat, cristis praesignis et auro: Igne micant oculi, corpus tumet omne veneno, Tresque vibrant linguae, triplici stant ordine dentes.

1. Translate (Verg. Zen. II. 437-444): -

Hie vero ingentem pugnam, ceu cetera nusquam Bella forent, nulli tota morerentur in urbe, Sie Martem indomitum Danaosque ad tecta ruentes Cernimus, obsessumque acta testudine limen. Haerent parietibus scalae, postesque sub ipsos Nituntur gradibus, clipeosque ad tela sinistris Protecti objiciunt, prensant fastigia dextris.

- 2. (a) Why is forent subjunctive? How was a testudo formed?
- (b) Distinguish between paries and moenia, tela and arma.
- (c) Who were called *Danai?* By what other names does Virgil designate them?
- 3. (a) Divide lines 4 and 5 into feet, marking the quantity of each syllable.
- (b) In this passage, what final syllables having a short vowel are made long by position?
- (c) Mark the quantity of each syllable in diei, ab, pacis, dabamus.

[6 may be substituted for 4 or 5.]

4. Translate (Verg. Ecl. I. 59-63): —

Ante leves ergo pascentur in aethere cervi, Et freta destituent nudos in litore pisces, Ante, pererratis amborum finibus, exsul Aut Ararim Parthus bibet, aut Germania Tigrim, Quam nostro illius labatur peetore voltus.

5. Locate the rivers mentioned in line 4. Distinguish between *lēvis* and *lēvis*.

- 6. Translate (Verg. Geor. I. 129–135):—
  Ille malum virus serpentibus addidit atris,
  Praedarique lupos jussit, pontumque moveri,
  Mellaque decussit foliis, ignemque removit,
  Et passim rivis currentia vina repressit,
  Ut varias usus meditando extunderet artes
  Paulatim, et suleis frumenti quaereret herbam,
  Ut silicis venis abstrusum excuderet ignem.
- 7. Translate (Ovid, Met. III. 55-62):—

  Ut nemus intravit, letataque corpora vidit,

  Victoremque supra spatiosi corporis hostem

  Tristia sanguinea lambentem vulnera lingua,

  "Aut ultor vestrae, fidissima corpora, mortis,

  Aut comes," inquit, "ero." Dixit, dextraque molarem

  Sustulit, et magnum magno conamine misit.

  Illius impulsu cum turribus ardua celsis

  Mocnia mota forent: serpens sine vulnere mansit.

[Omit any two passages.]

- Translate (Verg. Æn. I. 740-746): —
   Cithara crinitus Iopas
   Personat aurata, docuit quem maximus Atlas.
   Hic canit errantem lunam solisque labores,
   Unde hominum genus et pecudes, unde imber et ignes,
   Arcturum pluviasque Hyadas geminosque Triones,
   Quid tantum oceano properent se tinguere soles
   Hiberni, vel quae tardis mora noctibus obstet.
- 2. To what does geminos Triones refer? Explain the meaning of the last two verses.

3. Translate (Verg. Æn. VI. 384-391): -

Ergo iter inceptum peragunt, fluvioque propinquant. Navita quos jam inde ut Stygia prospexit ab unda Per tacitum nemus ire pedemque advertere ripae, Sie prior aggreditur dictis atque increpat ultro:

- ·· Quisquis es, armatus qui nostra ad flumina tendis,
- "Fare age, quid venias, jam istinc et comprime gressum.
- "Umbrarum hic locus est, Somni Noctisque soporae:
- "Corpora viva nefas Stygia vectare carina."
- 4. What is the object of prospexit? With what is jam istine to be joined? How does the Sibyl appease Charon?
  - 5. Translate (Verg. Æn. IX. 176–183): Nisus erat portae custos, acerrimus armis, Hyrtacides, comitem Aeneae quem miserat Ida Venatrix, jaculo celerem levibusque sagittis; Et juxta comes Euryalus, quo pulchrior alter Non fuit Aeneadum. Trojana neque induit arma, Ora puer prima signans intonsa juventa. His amor unus erat, pariterque in bella ruebant; Tum quoque communi portam statione tenebant.
- 6. Describe briefly the adventure of Nisus and Euryalus which is related in this book.
  - 7. Translate (Verg. Ecl. V. 45-52):—
    Tale tuum earmen nobis, divine poeta,
    Quale supor fessis in gramine, quale per aestum
    Duleis aquae saliente sitim restinguere rivo.
    Nec calamis solum aequiparas, sed voce magistrum.
    Fortunate puer, tu nunc eris alter ab illo.
    Nos tamen haec quocumque modo tibi nostra vicissim
    Dicemus, Daphnimque tuum tollemus ad astra;
    Daphnin ad astra feremus: amavit nos quoque

Daphnis.

- 8. What other word in the sentence has the same construction as *sopor?* In what sense is *alter* used?
  - 9. Translate (Verg. Geor. I. 259-267):—
    Frigidus agricolam si quando continet imber.
    Multa, forent quae mox caelo properanda sereno,
    Maturare datur: durum procudit arator
    Vomeris obtunsi dentem, cavat arbore lintres,
    Aut pecori signum aut numeros impressit acervis.
    Exacuunt alii vallos furcasque bicornis,
    Atque Amerina parant lentae retinacula viti.
    Nune facilis rubea texatur fiscina virga;
    Nunc torrete igni fruges, nune frangite saxo.
- 10. To whom was this work dedicated? The general subject of the first book.

In silvas abeunt, juga sunt umerique manusque; Quod caput ante fuit, summo est in monte cacumen; Ossa lapis fiunt. Tum partes auctus in omnes Crevit in immensum — sic di statuistis — et omne Cum tot sideribus caelum requievit in illo.

#### PROSODY.

- 1. Explain the terms, spondee, ictus, thesis.
- 2. Give the rules for the quantity of a final and es final, with the most important exceptions.
- 3. Divide the following verse into feet, marking the place of the cæsura, and the quantity of each syllable:—

Unde hominum genus et pecudes, unde imber et ignes.

[Omit any two passages.]

1. Translate (Verg. Æn. H. 571-582):—

Illa\* sibi infestos eversa ob Pergama Teucros Et poenas Danaum et deserti conjugis iras

Praemetuens, Trojae et patriae communis Erinys,

Abdiderat sese atque aris invisa sedebat.

Exarsere ignes animo; subit ira cadentem

Ulcisci patriam et sceleratas sumere poenas.

- "Scilicet hace Spartam incolumis patriasque Mycenas
- "Adspiciet? partoque ibit regina triumpho,
- "Conjugiumque domumque patres natosque videbit,
- " Iliadum turba et Phrygiis comitata ministris?
- "Occiderit ferro Priamus? Troja arserit igni?
- "Dardanium toties sudarit sanguine litus?
  - \* Helen.
- 2. (a) To whom does conjugis (line 2) refer?
- (b) Explain the meaning of Trojac et patriae communis Erinys.
  - (c) In what two ways may invisa (line 4) be translated?
  - 3. Translate (Verg. Æn. V. 852-861): —

Talia dicta dabat, clavumque affixus et haerens Nusquam amittebat, oculosque sub astra tenebat. Ecce deus ramum Lethaeo rore madentem Vique soporatum Stygia super utraque quassat Tempora, cunctantique natantia lumina solvit. Vix primos inopina quies laxaverat artus; Et superincumbens, cum puppis parte revulsa Cumque gubernaclo, liquidas projecit in undas Praecipitem ac socios nequidquam saepe vocantem;

4. Explain the epithets Lethaeo and Stygia.

Ipse volans tenues se sustulit ales ad auras.

5. Translate (Verg. Æn. VII. 360-370): -

Nee te miseret gnataeque tuique?
Nee matris miseret, quam primo aquilone relinquet
Perfidus, alta petens abdueta virgine, praedo?
At non sic Phrygius penetrat Lacedaemona pastor
Ledaeamque Helenam Trojanas vexit ad urbes?
Quid tua sancta fides? quid cura antiqua tuorum
Et consanguineo toties data dextera Turno?
Si gener externa petitur de gente Latinis,
Idque sedet, Faunique premunt te jussa parentis,
Omnem equidem sceptris terram quae libera nostris
Dissidet, externam reor, et sie dicere divos.

- 6. (a) Who is meant by Phrygius pastor?
  - (b) Explain the purport of the last two lines.
- 7. Translate (Verg. Ecl. III. 64-71):—

D. Malo me Galatea petit, lasciva puella,

Et fugit ad salices, et se cupit ante videri.

M. At mihi sese offert ultro meus ignis Amyntas,

Notior ut jam sit canibus non Delia nostris.

D. Parta meae Veneri sunt munera: namque notavi

Ipse locum, aëriae quo congessere palumbes.

M. Quod potui, puero silvestri ex arbore leeta

Aurea mala decem misi; eras altera mittam.

8. Translate (Verg. Geor. II. 397-407):—

Est etiam ille labor curandis vitibus alter, Cui numquam exhausti satis est: namque omne quotannis

Terque quaterque solum scindendûm glaebaque versis Aeternum frangenda bidentibus; omne levandum Fronde nemus. Redit agricolis labor actus in orbem, Atque in se sua per vestigia volvitur annus. Ac jam olim, seras posuit cum vinca frondes,

Frigidus et silvis Aquilo decussit honorem, Jam tum acer curas venientem extendit in annum Rusticus, et curvo Saturni dente relictam Persequitur vitem attondens fingitque putando.

# 9. Translate (Ovid, Met. I. 351-362):—

"O soror, o conjunx, o femina sola superstes,
Quam commune mihi genus et patruelis origo,
Deinde torus junxit, nunc ipsa pericula jungunt:
Terrarum, quascumque vident occasus et ortus,
Nos duo turba sumus; possedit cetera pontus.
Hace quoque adhuc vitae non est fiducia nostrae
Certa satis; terrent etiam nunc nubila mentem.
Quid tibi, si sine me fatis erepta fuisses,
Nunc animi, miseranda, foret? quo sola timorem
Ferre modo posses? quo consolante doleres?
Namque ego, crede mihi, si te quoque pontus haberet.
Te sequerer, conjunx, et me quoque pontus haberet.

#### PROSODY.

- 10. (a) Give the rules for the quantity of final syllables in es and in o with the principal exceptions.
- (b) Define caesura. Where is the caesural pause usually found?
- (c) Mark off the following lines into feet, indicating the quantity of each syllable; and show where the caesural pause falls:—

Postquam altum tenuere rates, nec jam amplius ullae Apparent terrae, caelum undique et undique pontus, Tum mihi caeruleus supra caput adstitit imber, Noctem hiememque ferens, et inhorruit unda tenebris.

- Translate (Verg. Æn. IV. 560-565):—
   Nate dea, potes hoe sub easu ducere somnos,
   Nec. quae te circum stent deinde pericula, cernis,
   Demens, nec Zephyros audis spirare secundos?
   Illa dolos dirumque nefas in pectore versat,
   Certa mori, varioque irarum fluctuat aestu.
   Non fugis hine praeceps, dum praecipitare potestas?
- 2. (a) Give the construction of dea. Who are meant by Nate, dea, and illa?
- (b) Divide the first three lines into feet, and give rules for the quantities of any nine vowels in the first line.

[Omit any two of the following passages.]

- 3. Translate (Verg. Ecl. III. 32-37):—

  De grege non ausim quicquam deponere tecum:
  Est mihi namque domi pater, est injusta noverca;
  Bisque die numerant ambo pecus, alter et haedos.
  Verum, id quod multo tute ipse fatebere majus,
  Insanire libet quoniam tibi, pocula ponam
  Fagina, caelatum divini opus Alcimedontis.
- 4. Why are these poems called "Eclogues"? Why "Bucolies"?
  - 5. Translate (Verg. Geor. II. 503-512):—
    Sollicitant alii remis freta caeca, ruuntque
    In ferrum, penetrant aulas et limina regum;
    Hic petit exscidiis urbem miserosque Penatis,
    Ut gemma bibat et Sarrano dormiat ostro;
    Condit opes alius, defossoque incubat auro;
    Hie stupet attonitus Rostris; hunc plausus hiantem
    Per cuncos geminatus enim plebisque patrumque
    Corripuit; gaudent perfusi sanguine fratrum,

Exsilioque domos et dulcia limina mutant, Atque alio patriam quaerunt sub sole iacentem.

- 6. Tell what you know of the Penates. Give the derivation and different meanings of rostrum.
  - 7. Translate (Verg. Æn. IX. 375–383): Conclamat ab agmine Volscens: State, viri; quae caussa viae? quive estis in armis? Quove tenetis iter? Nihil illi tendere contra, Sed celerare fugam in silvas et fidere nocti.

Obiiciunt equites sese ad divortia nota Hine atque hine, omnemque abitum custode coronant. Silva fuit late dumis atque ilice nigra Horrida, quam densi complerant undique sentes;

- Horrida, quam densi complerant undique sentes; Rara per occultos lucebat semita calles.
- 8. Give in outline the episode of Nisus and Euryalus.
- 9. Translate (Ovid, Met. I. 324–335):—

  Juppiter ut liquidis stagnare paludibus orbem,
  Et superesse virum de tot modo milibus unum,
  Et superesse videt de tot modo milibus unam,
  Innocuos ambos, cultores numiuis ambos,
  Nubila disjecit, nimbisque aquilone remotis
  Et caelo terras ostendit, et aethera terris.
  Nec maris ira manet, positoque tricuspide telo
  Mulcet aquas rector pelagi, supraque profundum
  Exstantem atque umeros innato murice tectum
  Caeruleum Tritona vocat, conchaeque sonanti
  Inspirare jubet, fluctusque et flumina signo
  Jam revocare dato.
- 10. Who is meant by rector pelagi? Give the myth of Deucalion.

- 1. Translate (Verg. Ecl. VII. 6-13);—
  Hue mihi, dum teneras defendo a frigore myrtos,
  Vir gregis ipse caper decraverat: atque ego Daphmin
  Aspicio. Ille ubi me contra videt; Ocius, inquit,
  Hue ades, o Meliboee! caper tibi salvus et haedi;
  Et, si quid cessare potes, requiesce sub umbra.
  Hue ipsi potum venient per prata juvenci;
  Hie virides tenera praetexit harundine ripas
  Mincius, eque sacra resonant examina quercu.
- 2. Give the construction of quid (line 5), potum (line 6). Meaning of vir (line 2); why could not homo be used? Derivation of examina (line 8).
- 3. Divide the first two lines of the preceding passage into feet, marking the quantity of the syllables. Give rule for the quantity of final vowel of *mihi*; of final syllable of *gregis*. What names does this verse bear, and why are they given? What figure of prosody in the second line?
  - 4. Translate (Verg. Æn. V. 854–861):—

    Ecce deus ramum Lethaco rore madentem
    Vique soporatum Stygia super utraque quassat
    Tempora, cunctantique natantia lumina solvit.
    Vix primos inopina quies laxaverat artus:
    Et superincumbens cum puppis parte revolsa
    Cumque gubernaclo liquidas projecit in undas
    Praecipitem ac socios nequiquam saepe vocantem;
    Ipse volans tenues se sustulit ales ad auras.
- 5. Construction of *conctanti* (line 3); to whom does it refer? What sort of a verb is *quassat* (line 2)?

[Omit any two of the following passages.]

- 6. Translate (Verg. Geor. II. 532-538):—
  Hane olim veteres vitam colucre Sabini
  Hane Remus et frater, sie fortis Etruria crevit
  Scilicet et rerum facta est pulcherrima Roma,
  Septemque una sibi muro circumdedit arces.
  Ante etiam sceptrum Dictaei regis, et ante
  Impia quam caesis gens est epulata juvencis,
  Aureus hane vitam in terris Saturnus agebat.
- 7. Who is meant by *Dictaci regis* (line 5), and why is he so termed? To whom were the Georgics addressed?
  - 8. Translate (Verg. Æn. IX. 47-53):—
    Turnus, ut ante volans tardum praecesserat agmen,
    Viginti lectis equitum comitatus et urbi
    Improvisus adest; maculis quem Thracius albis
    Portat equus, cristaque tegit galea aurea rubra.
    Ecquis erit, mecum, juvenes, qui primas in hostem?
    En, ait. Et jaculum attorquens emittit in auras,
    Principium pugnae, et campo sese arduus infert.
- 9. Construction of qui (line 5). What figure have we in the line?
  - 10. Translate (Ovid, Met. IV. 735-743):—

    Litora cum plausu clamor superasque deorum
    Implevere domos: gaudent, generumque salutant.

    Auxiliumque domus servatoremque fatentur
    Cassiope Cepheusque pater: resoluta catenis
    Incedit virgo, pretiumque et causa laboris.
    Ipse manus hausta victrices abluit unda;
    Anguiferumque caput dura ne laedat harena,
    Mollit humum foliis, natasque sub acquore virgas
    Sternit, et imponit Phorcynidos ora Medusae.
  - 11. Give a brief outline of the story here referred to.

#### PROSODY.

1. Describe the following verse by giving its full metrical name:—

Quippe etiam festis quaedam exercere diebus.

Divide it into feet, marking the quantity of each syllable and the place of the cæsura. What figure of prosody does this verse illustrate? Show wherein. Mark the quantity of the final syllables in possis, audi, bonus, dummodo, bos, illuc.

# 2. Translate (Æn. VI. 56-65):—

- "Phoebe, graves Trojae semper miserate labores,
- " Dardana qui Paridis direxti tela manusque
- "Corpus in Acacidae, magnas obcuntia terras
- "Tot maria intravi duce te, penitusque repostas
- "Massylum gentes praetentaque Syrtibus arva;
- "Jam tandem Italiae fugientis prendimus oras:
- "Hae Trojana tenus fuerit fortuna secuta!
- "Vos quoque Pergameae jam fas est parcere genti,
- "Dique deaeque omnes, quibus obstitit Ilium et ingens
- "Gloria Dardaniae.

Explain the reference in the second verse. What were the Syrtes? How had Æneas made this voyage "duce te"?

# 3. Translate (Ecl. VI. 64-73): -

Tum canit, errantem Permessi ad flumina Gallum Aonas in montes ut duxerit una sororum, Utque viro Phoebi chorus adsurrexerit omnis; Ut Linus hace illi, divino carmine pastor, Floribus atque apio crines ornatus amaro Dixerit: "Hos tibi dant calamos, en accipe, musae, Ascraeo quos ante seni; quibus ille solebat

Cantando rigidas deducere montibus ornos, His tibi Grynei nemoris dicatur origo, Ne quis sit lucus, quo se plus jactet Apollo."

How is Aonas declined? Who is meant by Ascraeo seni? The construction of crines.

[Omit any two of the following passages.]

# 4. Translate (Æn. VII. 523-530): —

Direxere acies. Non jam certamine agresti Stipitibus duris agitur sudibusve praeustis; Sed ferro ancipiti decernunt, atraque late Horrescit strictis seges ensibus, aeraque fulgent Sole lacessita et lucem sub nubila jactant: Fluctus uti primo coepit quum albescere ponto, Paullatim sese tollit mare et altius undas Erigit, inde imo consurgit ad aethera fundo.

What had Alecto done to bring on this conflict between the Trojans and the Latins?

# 5. Translate (Geor. II. 61-68): -

Scilicet omnibus est labor impendendus, et omnes Cogendae in sulcum ac multa mercede domandae. Sed truncis oleae melius, propagine vites Respondent, solido Paphiae de robore myrtus; Plantis et durae coryli nascuntur et ingens Fraxinus Herculeaeque arbos umbrosa coronae Chaoniique patris glandes; etiam ardua palma Nascitur et casus abies visura marinos.

At whose request did Vergil write the Georgics? The main subject of Book II.

# 6. Translate (Met. I. 244-252): -

Dicta Jovis pars voce probant stimulosque frementi Adiciunt, alii partes assensibus implent. Est tamen humani generis jactura dolori Omnibus, et, quae sit terrae mortalibus orbae Forma futura, rogant; quis sit laturus in aras Tura? ferisne paret populandas tradere terras? Talia quaerentes, sibi enim fore cetera curae, Rex superum trepidare vetat, subolemque priori Dissimilem populo promittit origine mira.

Explain the meaning of the first two verses. How, according to this myth, was the earth repeopled?

#### LATIN AT SIGHT.

#### 1881.

M. Atilius Regulus, cum consul iterum in Africa ex insidiis captus esset, duce Xanthippo Lacedaemonio, imperatore autem patre Hannibalis Hamileare, juratus missus est ad senatum, ut, nisi redditi essent Poenis captivi nobiles quidam, rediret ipse Karthaginem. Is cum Romam venisset, utilitatis speciem videbat, sed eam, ut res declarat, falsam judicavit: quae erat talis: manere in patria, esse domi suae cum uxore, cum liberis; quam calamitatem accepisset in bello, communem fortunae bellicae judicantem, tenere consularis dignitatis gradum. Itaque quid fecit? In senatum venit, mandata exposuit: sententiam ne diceret, recusavit; "quam diu jure jurando bostium teneretur, non esse se senatorem."

#### 1882.

Illa praeclara, in quibus publicae utilitatis species prae honestate contemnitur. Plena exemplorum est nostra res publica, cum saepe, tum maxime bello Punico secundo: quae, Cannensi calamitate accepta, majores animos habuit, quam unquam rebus secundis. Nulla timoris significatio, nulla mentio pacis. Themistocles post victoriam ejus belli, quod cum Persis fuit, dixit in contione, se habere consilium rei publicae salutare, sed id sciri non opus esse. Postulavit, ut aliquem populus daret, quicum communicaret. Datus est Aristides. Huic ille, classem Lacedaemoniorum, quae subducta esset ad Gytheum, clam incendi posse: quo facto frangi Lacedaemoniorum opes necesse esset. Quod Aristides cum audisset, in contionem magna expectatione venit, dixitque, perutile esse consilium, quod Themistocles afferret, sed minime honestum. Itaque Athenienses, quod honestum non esset, id ne utile quidem putaverunt: totamque cam rem, quam ne audierant quidem, auctore Aristide repudiaverunt.

Haec interposui, patres conscripti, non tam ut pro me dicerem, quam ut quosdam nimis iciuno animo et angusto monerem, id quod semper ipse fecissem, uti excellentium civium virtutem imitatione dignam, non invidia putarent. utinam quidem illi principes viverent, qui me post meum consulatum, cum eis ipse cederem, principem non inviti videbant! hoe vero tempore in tanta inopia constantium et fortium consularium quo me dolore adfici creditis, cum alios male sentire, alios nihil omnino curare videam, alios parum constanter in suscepta causa permanere sententiamque suam non semper utilitate rei publicae, sed tum spe tum timore moderari? quod si quis de contentione principatus laborat, quae nulla esse debet, stultissime facit, si vitiis cum virtute contendit: ut enim cursu cursus, sic in viris fortibus virtus virtute superatur. tu, si ego de re publica optime sentiam, ut me vincas, ipse pessime senties? aut, si ad me bonorum concursum fieri videbis, ad te improbos invitabis? nollem, primum rei publicae causa, deinde etiam dignitatis tuac. sed si principatus ageretur, quem numquam expetivi, quid tandem mihi esset optatius? ego enim malis sententiis vinci non possum, bonis forsitan possim et libenter.

#### ROMAN HISTORY.

#### 1881.

- 1. Explain the origin and nature of the Tribuneship.
- 2. Give the cause, duration, and results of the struggle between Rome and Carthage.
- 3. Give the place and manner of death of each member of the first Triumvirate.
  - 4. Mention any three writers of the Augustan age.

#### 1882.

- 1. Give an account of the capture of Rome by the Gauls.
- 2. Explain how Rome obtained and governed her first province.
  - 3. Sketch the life and character of Caius Gracchus.
- 4. By what steps did Augustus become emperor? Mention peculiarities of his reign.
  - 5. Who succeeded Augustus in the first century?

#### 1883.

- 1. What evils did the Gracchi attempt to reform? What was the difference between the plans of T. Gracchus and C. Gracchus? Why did they fail?
- 2. What were the limits of the Roman Empire at the death of Augustus?

- 3. Where were Actium, Metaurus, Zama, Pharsalia, Cynoscephalae? What happened at those places, and when?
- 4. Explain Tribunus, Provincia, Censor, Decemvir, Dictator.
- 5. Name in order of time the foreign enemies that Rome fought on Italian soil.

- 4. Translate into Greek: -
- (a) We shall besiege the city both by land and by sea.
- (b) He did not do harm to others, because he feared that he might suffer harm himself.
- (c) The hoplites will march against the king, if he encamp in the plain.
- (d) He said that Cyrus would have given him ten talents, if he had arrived before the battle.
- (e) He used-to-praise whomever he saw bravely attacking<sup>2</sup> the enemy.

<sup>1</sup> какŵs.

 $^2$  ἐπιτίθεμαι.

#### 1880.

### [All Greek words to be written with accents.]

- 1. Decline πολές in all genders and numbers; also νίδς and πόλις throughout.
- 2. Give the first person singular indicative of the future active and acrist passive of φαίνω, φιλέω, ἀκούω, πράσσω.
  - 3. Analyze λυθήσεσθον.
- 4. Give the different constructions in which the accusative case is used in Greek.
- 5. Define crasis, enclitic, reduplication, mentioning examples of each.
  - 6. Translate into Attic Greek: —
  - (a) He mounted his horse, and took his javelins in his hand.
- (b) Through the middle of the city there flowed a river, Kydnos by name, two plethra in width.
- (c) If the general himself had occupied the right wing, we should have conquered the enemy (from) whom now we are fleeing.
- (d) He says it is well if we do-good-to all those whoever do-harm-to us.
  - (e) If you have no chariot, why do you want a horse?

# [All Greek words to be written with accents.]

- Decline throughout τιμή, δῶρον, γένος, the pronoun σύ, and the numeral εἶς.
- 2. Give the synopsis (i.e., first form in every mode) of the first acrist active of  $\sigma \tau \epsilon \lambda \lambda \omega$ , the second acrist middle of  $\tau \ell \theta \eta \mu \iota$ .
  - 3. Analyze λυθείησαν.
- 4. What sort of pronouns are οίος and ὄσος? Give the demonstrative and interrogative pronouns corresponding.
- 5. What is *hiatus*, and what means are used in Greek to avoid it?
- 6. Give some rules with examples of euphonic change in consonants. What consonants may end a Greek word?
  - 7c Give a list of prepositions that take one case only.
- 8. Explain, with Greek examples, the terms enclitic, cognate accusative, objective genitive, supplementary participle.
  - 9. With what parts of the verb is the particle ar not used?
- 1. Cyrus, with his army, was besieging this city. And of the citizens some wished to surrender<sup>1</sup> it, but others spoke against<sup>2</sup> (it). Cyrus, therefore, said that when he had taken the city, he should do well by<sup>3</sup> those who spoke against surrender, and exile<sup>4</sup> the others.
- 2. If the general had wished to go, the soldiers would have followed (him).
- 3. Let us march as quickly as possible to the river that we may embark upon the boats which Cyrus has given us.

 $<sup>^{1}</sup>$  παραδίδωμι.  $^{2}$  ἀντιλέγω.  $^{3}$  εὖ ποιεῖν.  $^{4}$  ἐκβάλλω.

# [All Greek words to be written with accents.]

- Decline throughout μοῦσα, ὁδός, πας, πολές, and the pronoun οῦ.
- 2. Give the synopsis (i.e., first form in every mode) of the future active of  $\phi a i r \omega$ , the first acrist passive of  $\lambda a \mu \beta a r \omega$ , the perfect middle of  $\pi \rho a \sigma \sigma \omega$ .
  - 3. Analyze λύσωνται.

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- 4. What sort of pronoun is 6; what  $6\sigma\tau\iota\varsigma$ ? Give Greek examples of demonstrative, reciprocal, reflexive, and possessive pronouns.
  - 5. What is crasis? Give an example.
- 6. What is meant by *attraction* in connection with relative clauses?
- 7. What are the four most common forms of conditional sentences, with the differences of meaning?
  - 8. In what two ways is prohibition expressed in Greek?
- 9. "He asked who were present." In what different ways may "who were present" in this sentence be expressed in Greek?
  - 10. Mention the chief uses of the infinitive mode.
- 1. And Orontes, a Persian gentleman, conspires against Cyrus. He said to Cyrus that, if he would give him a thousand horsemen, he would either cut to pieces? or take alive the hostile horsemen. And Cyrus directed him to take a part (of the number) from each of the generals. And he writes a letter to the king that he was coming with? as many horsemen as possible. This letter he gives to a faithful per-

 $<sup>^{1}</sup>$  ἐπιβουλεύω.  $^{2}$  κατακτείνω.  $^{3}$  = having.

son, as he thought. And he having taken (it), gives (it) to Cyrus.

- 2. I was the first to announce to him that Cyrus was making an expedition against him.
- 3. Let us provide ourselves with arms, and go up on the mountain.
  - 4. If we had besieged that city, we should have taken it.

#### 1883.

# [All Greek words to be written with accents.]

- 1. Decline throughout ὀργή, χείρ, τείχος, δύναμις; also όστις.
- 2. Analyze λυθωμέν.
- 3. What uses of the genitive are illustrated in the following examples:  $\pi$ ολλοὶ τῶν ᾿Αθηναίων, νόμισμα ἀργύρου, ὁ φόβος τῶν πολεμίων, τριῶν ἡμερῶν ὁδός?
- 4. Explain, with Greek examples, the terms proclitic, potential optative, verbal adjective.
- Give the comparative and superlative of μέλας, μέγας, πολύς.
- 6. Write the synopsis (i.e. first form of every mode) of the perfect middle of  $\lambda \dot{\nu}\omega$ , the first acrist active of  $\sigma \tau \dot{\epsilon} \lambda \lambda \omega$ , the second acrist passive of  $\phi a \dot{\nu} \omega$ .
- 7. Where found and from what presents are είλον, ηλλάχθην, εγρήγορα.
- 8. State the difference in meaning between μη τοῦτο ποιήσης and μη τοῦτο ποιήσειας; between ἔστην and ἔστησα.
- 9. Name the classes into which verbs are divided according to the form of the present stem, with an example under each.
- 1. The citizens chose Kyros (to be) general out of many (candidates), (one) of whom was the brother of Kyros.

αὐτοῖς τοῦς νῦν οἴκοι ἀκλήρους πολιτεύοντας ἐνθάδε κομισαμένους πλουσίους ὁρᾶν. ἀλλὰ γάρ, ὁ ἄνδρες, πάντα ταῦτα τὰγαθὰ δῆλον ὅτι τῶν κρατούντων ἐστί.

Construction of εξόν, of πλουσίους, of των κρατούντων.

## 4. Translate (Xen. An. IV. 5, 12 f.): -

έφείποντο δὲ τῶν πολεμίων συνειλεγμένοι τινὲς καὶ τὰ μὴ δυνάμενα τῶν ὑποζυγίων ἥρπαζον καὶ ἀλλήλοις ἐμά-χοντο περὶ αὐτῶν. ἐλείποντο δὲ τῶν στρατιωτῶν οἴ τε διεφθαρμένοι ὑπὸ τῆς χιόνος τοὺς ὀφθαλμοὺς οἴ τε ὑπὸ τοῦ ψύχους τοὺς δακτύλους τῶν ποδῶν ἀποσεσηπότες. ἡν δὲ τοῖς μὲν ὀφθαλμοῖς ἐπικούρημα τῆς χιόνος εἴ τις μέλαν τι ἔχων πρὸ τῶν ὀφθαλμῶν ἐπορεύετο, τῶν δὲ ποδῶν εἴ τις κινοῖτο καὶ μηδέποτε ἡσυχίαν ἔχοι καὶ εἰ τὴν νύκτα ὑπολύοιτο.

Construction of  $\tau o v s \delta \phi \theta a \lambda \mu o v s$ , of  $\tau \hat{\omega} v \pi o \delta \hat{\omega} v$  (before  $\epsilon i \tau \iota s$ ). Explain the last four words of the passage.

## 5. Translate (*Hdt*. VII. 120):—

ἔνθα δὴ Μεγακρέοντος ἀνδρὸς ᾿Αβδηρίτεω ἔπος εὖ εἰρημένον ἐγένετο, ὸς συνεβούλευσε ᾿Αβδηρίτησι πανδημεὶ αὐτοὺς καὶ γυναῖκας ἐλθόντας ἐς τὰ σφέτερα ἰρὰ ἵζεσθαι ἰκέτας τῶν θεῶν, παραιτεομένους καὶ τὸ λοιπόν σφι ἀπαμύνειν τῶν ἐπιόντων κακῶν τὰ ἡμίσεα, τῶν τε παροιχομένων ἔχειν σφι μεγάλην χάριν, ὅτι βασιλεὺς ឪέρξης οὐ δὶς ἐκάστης ἡμέρης ἐνόμισε σῖτον αἰρέεσθαι παρέχειν γὰρ ἂν ᾿Αβδηρίτησι, εἰ καὶ ἄριστον προείρητο ὁμοῖα τῷ δείπνῷ παρασκευάζειν, ἡ μὴ ὑπομένειν ឪέρξεα ἐπιόντα, ἡ καταμείναντας κάκιστα πάντων ἀνθρώπων διατριβῆναι.

Mark the variations from the Attic dialect. Subject of  $\xi \chi \epsilon \omega$  and of  $\pi \alpha \rho \epsilon \chi \epsilon \omega$ . Where was Abdera?

#### 1877.

[Any two of the following passages may be omitted.]

### 1. Translate (Xen. An. I. 6, 9): —

πρὸς ταῦτα Κῦρος εἶπε τοῖς παροῦσιν 'Ο μὲν ἀνὴρ τοιαῦτα μὲν πεποίηκε, τοιαῦτα δὲ λέγει · ὑμῶν δὲ σὰ πρῶτος, ὧ Κλέαρχε, ἀπόφηναι γνώμην ὅ τι σοι δοκεῖ. Κλέαρχος δὲ εἶπε τάδε · Συμβουλεύω ἐγὼ τὸν ἄνδρα τοῦτον ἐκποδῶν ποιεῖσθαι ὡς τάχιστα, ὡς μηκέτι δέῃ τοῦτον φυλάττεσθαι, ἀλλὰ σχολὴ ἢ ἡμῖν τὸ κατὰ τοῦτον εἶναι τοὺς ἐθελοντὰς φίλους τούτους εὖ ποιεῖν. μετὰ ταῦτα κελεύοντος Κύρου ἔλαβον τῆς ζώνης τὸν 'Ορόντην ἐπὶ θανάτῷ ἄπαντες ἀναστάντες · εἶτα δὲ ἐξῆγον αὐτὸν οἷς προσετάχθη.

Point out the indirect question. Why ἀπόφηναι, and not ἀποφήναι or ἀποφήναι? Construction of ζώνης and of the antecedent of οἷς.

### 2. Translate (Xen. An. II. 6, 6): -

ταῦτα οὖν φιλοπολέμου μοι δοκεῖ ἀνδρὸς ἔργα εἶναι, ὅστις ἔξὸν μὲν εἰρήνην ἔχειν ἄνευ αἰσχύνης καὶ βλάβης αἰρεῖται πολεμεῖν, έξὸν δὲ χρήματα ἔχειν ἀκινδύνως αἰρεῖται πολεμῶν μείονα ταῦτα ποιεῖν ἐκεῖνος δὲ ὥσπερ εἰς παιδικὰ ἢ εἰς ἄλλην τινὰ ἡδονὴν ἤθελε δαπανᾶν εἰς πόλεμον.

Construction of ¿ξόν. Of whom is this character given?

## 3. Translate (Xen. An. III. 3, 1): —

τούτων λεχθέντων ἀνέστησαν, καὶ ἀπελθόντες κατέκαον τὰς ἄμάξας καὶ τὰς σκηνὰς, τῶν δὲ περιττῶν ὅτου μὲν δέοιτό τις μετεδίδοσαν ἀλλήλοις, τὰ δὲ ἄλλα εἰς τὸ πῦρ ἐρρίπτουν. ταῦτα ποιήσαντες ἠριστοποιοῦντο. ἀρι-

στοποιουμένων δε αὐτῶν ἔρχεται Μιθριδάτης σὺν ἱππεῦστιν ὡς τριάκοντα καὶ καλεσάμενος τοὺς στρατηγοὺς εἰς ἐπήκοον λέγει ὡδε·... εἰ οὖν ὁρῷην ὑμᾶς σωτήριών τι βουλευομένους, ἔλθοιμι ἂν πρὸς ὑμᾶς, καὶ τοὺς θεράποντας πάντας ἔχων. λέξατε οὖν πρός με, τί ἐν νῷ ἔχετε.

Construction of  $\tau \hat{\omega} \nu \pi \epsilon \rho \iota \tau \tau \hat{\omega} \nu$ . What other form is there of  $\delta \tau \omega \nu$ ? What custom is implied by  $\delta \nu \epsilon \omega \tau \eta \sigma \omega \nu$ , and in what tense is the verb?

# 4. Translate (Xen. An. IV. 6, 4): -

μετὰ τοῦτος ἐπορεύθησαν ἐπτὰ σταθμοὺς, ἀνὰ πέντε παρασάγγας τῆς ἡμέρας, παρὰ τὸν Φᾶσιν ποταμὸν, εὖρος πλεθριαῖον. Χειρίσοφος δ' ἐπεὶ κατεῖδε τοὺς πολεμίους ἐπὶ τῆ ὑπερβολῆ ἐπαύσατο πορευόμενος, ἀπέχων εἰς τριάκοντα σταδίους, ἵνα μὴ κατὰ κέρας ἄγων πλησιάση τοῖς πολεμίοις · παρήγγειλε δὲ καὶ τοῖς ἄλλοις παράγειν τοὺς λόχους, ὅπως ἐπὶ φάλαγγος γένοιτο τὸ στράτευμα.

Construction of  $\tau \hat{\eta} s$   $\hat{\eta} \mu \hat{\epsilon} \rho a s$ . Value of the *plethron* and *stadion* in our measures. Where was the  $\Phi \hat{a} \sigma s$ ? Is Xenophon right in naming it here?

# 5. Translate (*Hdt*. VI. 107):—

καί οἱ ταῦτα διέποντι ἐπῆλθε πταρεῖν τε καὶ βῆξαι μεζόνως ἢ ὡς ἐώθεε, οἶα δὲ πρεσβυτέρῳ ἐόντι τῶν ὀδόντων οἱ πλεῦνες ἐσείοντο. τούτων ὧν ἕνα τῶν ὀδόντων ἐκβάλλει ὑπὸ βίης βήξας · ἐκπεσόντος δὲ ἐς τὴν ψάμμον αὐτοῦ, ἐποιέετο πολλὴν σπουδὴν ἐξευρεῖν · ὡς δὲ οὐκ ἐφαίνετό οἱ ὁ ὀδὼν, ἀναστενάξας εἶπε πρὸς τοὺς παραστάτας · Ἡ γῆ ἥδε οὐκ ἡμετέρη ἐστὶ, οὐδέ μιν δυνησόμεθα ὑποχειρίην ποιήσασθαι · ὁκόσον δὲ τί μοι μέρος μετῆν, ὁ ὀδὼν μετέχει.

Point out the dialectic forms, giving the Attic equivalent in each case. Of whom is this story told, and what led him to make the remark?

#### 1878.

[Any two of the passages may be omitted.]

## 1. Translate (Xen. An. I. 5, 8):—

ἔνθα δὴ μέρος τι τῆς εὐταξίας ἦν θεάσασθαι. ῥίψαντες γὰρ τοὺς πορφυροῦς κάνδυς ὅπου ἔτυχεν ἔκαστος ἐστηκώς, ἵεντο ὥσπερ ἂν δράμοι τις περὶ νίκης καὶ μάλα κατὰ πρανοῦς γηλόφου, ἔχοντες τούτους τε τοὺς πολυτελεῖς χιτῶνας καὶ τὰς ποικίλας ἀναξυρίδας, ἔνιοι δὲ καὶ στρεπτοὺς περὶ τοῦς τραχήλοις καὶ ψέλια περὶ ταῖς χερσίν εὐθὺς δὲ σὺν τούτοις εἰσπηδήσαντες εἰς τὸν πηλὸν θᾶττον ἢ ὥς τις ἄν ὧετο μετεώρους ἐξεκύμισαν τὰς ἀμάξας.

Give the present of  $\delta \rho \acute{a}\mu \sigma \iota$ , and the comparison of  $\theta \acute{a}\tau \tau \sigma \iota$ . Explain the euphonic changes in  $\theta \acute{a}\tau \tau \sigma \iota$ . Point out the predicate adjective in this sentence.

## 2. Translate (Xen. An. II. 5, 16): —

άλλ' ήδομαι μέν, ὁ Κλέαρχε, ἀκούων σου φρονίμους λόγους ταῦτα γὰρ γιγνώσκων εἴ τι ἐμοὶ κακὸν βουλεύοις, ἄμα ἄν μοι δοκεῖς καὶ σαυτῷ κακόνους εἶναι. ὡς δ' ἂν μάθης, ὅτι οὐδ' ἂν ὑμεῖς δικαίως οὔτε βασιλεῖ οὔτ' ἐμοὶ ἀπιστοίητε, ἀντάκουσον. εἰ γὰρ ὑμᾶς ἐβουλόμεθα ἀπολέσαι, πότερά σοι δοκοῦμεν ἱππέων πλήθους ἀπορεῖν ἢ πεζῶν ἢ ὁπλίσεως;

What use of the participle is seen in  $\tilde{\alpha}\kappa\omega'\omega r$ ? To what does  $\tilde{\alpha}r$  (the one after  $\tilde{\alpha}\mu\alpha$ ) belong? Construction of  $\mu\omega'$ , of  $\kappa\alpha\kappa'\omega'\nu\omega$ , and of  $\pi\lambda'\eta'\theta\omega\nu$ s.

## 3. Translate (Xen. An. III. 2, 9):—

τοῦτο δὲ λέγοντος αὐτοῦ πτάρνυταί τις · ἀκούσαντες δ' οἱ στρατιῶται πάντες μιὰ ὁρμἢ προσεκύνησαν τὸν θεόν, καὶ Ξενοφῶν εἶπε, Δοκεῖ μοι, ὧ ἄνδρες, ἐπεὶ περὶ σωτη-

ρίας ήμῶν λεγόντων, οἰωνὸς τοῦ Διὸς τοῦ σωτῆρος ἐφάνη, εὕξασθαι τῷ θεῷ τούτῷ θύσειν σωτήρια ὅπου ἂν πρῶτον εἰς φιλίαν χώραν ἀφικώμεθα, συνεπεύξασθαι δὲ καὶ τοῖς ἄλλοις θεοῖς θύσειν κατὰ δύναμιν. καὶ ὅτῷ δοκεῖ ταῦτ', ἔφη, ἀνατεινάτω τήν χεῖρα. καὶ ἀνέτειναν ἄπαντες. ἐκ τούτου εὕξαντο καὶ ἐπαιάνισαν.

Reason for the subjunctive in ἀφικώμεθα. Construction of ἡμῶν. Construction of the antecedent of ὅτφ.

# 4. Translate (Xen. An. IV. 4, 15): -

ἐντεῦθεν ἔπεμψαν νυκτὸς Δημοκράτην Τεμενίτην ἄνδρας δόντες ἐπὶ τὰ ὅρη, ἔνθα ἔφασαν οἱ ἀποσκεδαννύμενοι καθορᾶν τὰ πυρά · οὖτος γὰρ ἐδόκει καὶ πρότερον πολλὰ ἤδη ἀληθεῦσαι τοιαῦτα, τὰ ὄντα τε ὡς ὄντα καὶ τὰ μὴ ὄντα ὡς οὐκ ὄντα. πορευθεὶς δὲ τὰ μὲν πυρὰ οὐκ ἔφη ίδεῖν, ἄνδρα δὲ συλλαβὼν ἤκεν ἄγων ἔχοντα τόξον Περσικὸν καὶ φαρέτραν καὶ σάγαριν, οἵανπερ αί ᾿Αμαζόνες ἔχουσιν. ἐρῶτώμενος δὲ τὸ ποδαπὸς εἴη, Πέρσης μὲν ἔφη εἶναι, πορεύεσθαι δ᾽ ἀπὸ τοῦ Τιριβάζου στρατεύματος, ὅπως ἐπιτήδεια λάβοι.

Construction of  $re\kappa \tau \delta s$ . To what does  $\tau \delta$  belong? Reason for the optative in  $\epsilon i \eta$  and in  $\lambda \delta \beta \delta s$ .

# 5. Translate (Plato Apol. Soc., 39 A.):—

καὶ γὰρ ἐν ταῖς μάχαις πολλάκις δῆλον γίγνεται ὅτι τό γε ἀποθανεῖν ἄν τις ἐκφύγοι καὶ ὅπλα ἀφεὶς καὶ ἐφ᾽ ἱκετείαν τραπόμενος τῶν διωκόντων καὶ ἄλλαι μηχαναί εἰσιν ἐν ἑκάστοις τοῖς κινδύνοις ὥστε διαφεύγειν θάνατον, ἐάν τις τολμῷ πῶν ποιεῖν καὶ λέγειν. ἀλλὰ μὴ οὐ τοῦτ᾽ ἢ χαλεπὸν, ὡ ἄνδρες, θάνατον ἐκφυγεῖν, ἀλλὰ πολὸ χαλεπώτερον πονηρίαν θᾶττον γὰρ θανάτου θεῖ. καὶ νῦν ἐγὼ μὲν, ἄτε βραδὺς ὢν καὶ πρεσβύτης, ὑπὸ τοῦ

βραδυτέρου έάλων, οί δ' ἐμοὶ κατήγοροι, ἄτε δεινοὶ καὶ ὀξεῖς ὄντες, ὑπὸ τοῦ θάττονος, τῆς κακίας.

What shows the mode of  $\tau o \lambda \mu \hat{a}$ ? What is understood before  $\mu \hat{\eta}$ ? Construction of  $\chi a \lambda \epsilon \pi \hat{\omega} \tau \epsilon \rho o \nu$  and of  $\pi o \nu \eta \rho \hat{\iota} a \nu$ . Present of  $\hat{\epsilon} \hat{a} \lambda \omega \nu$ .

#### 1879.

[Any two of these passages, with their questions, may be omitted.]

1. Translate (Xen. An. I. 6, 8): -

Τί οὖν, ἔφη ὁ Κῦρος, ἀδικηθεὶς ὑπ' ἐμοῦ νῦν τὸ τρίτον ἐπιβουλεύων μοι φανερὸς γέγονας; εἰπόντος δὲ τοῦ 'Ορόντου ὅτι οὐδὲν ἀδικηθεὶς ἤρώτησεν ὁ Κῦρος αὐτόν, 'Ομολογεῖς οὖν περὶ ἐμὲ ἄδικος γεγενῆσθαι; Ἡ γὰρ ἀνάγκη, ἔἡη ὁ 'Ορόντης. ἐκ τούτου πάλιν ἤρώτησεν ὁ Κῦρος, "Ετι οὖν ἂν γένοιο τῷ ἐμῷ ἀδελφῷ πολέμιος, ἐμοὶ δὲ φίλος καὶ πιστός; ὁ δὲ ἀπεκρίνατο ὅτι οὐδ' εἰ γενοίμην, ὧ Κῦρε, σοί γ' ἄν ποτε ἔτι δόξαιμι.

What were the previous cases referred to in τὸ τρίτον?

2. Translate (Xen. An. II. 3, 23): -

έπεὶ δὲ Κῦρος τέθνηκεν, οὔτε βασιλεῖ ἀντιποιούμεθα τῆς ἀρχῆς οὔτ' ἔστιν ὅτου ἕνεκα βουλοίμεθ' ἂν τὴν βασιλέως χώραν κακῶς ποιεῖν, οὖδ' αὐτὸν ἀποκτεῖναι ἂν ἐθέλοιμεν, πορευοίμεθα δ' ἂν οἴκαδε, εἴ τις ἡμᾶς μὴ λυποίη · ἀδικοῦντα μέντοι πειρασόμεθα σὺν τοῖς θεοῖς ἀμύνασθαι, ἐὰν μέντοι τις ἡμᾶς καὶ εὖ ποιῶν ὑπάρχη, καὶ τούτου εἴς γε δύναμιν οὐχ ἡττησόμεθα εὖ ποιοῦντες.

3. Translate (Xen. An. III. 4, 10, 12): -

ἐντεῦθεν ἐπορεύθησαν σταθμὸν ἕνα, παρασάγγας ἕξ, πρὸς τεῖχος ἔρημον μέγα πρὸς πόλει κείμενον ὄνομα δὲ

ην τη πόλει Μέσπιλα · Μήδοι δ' αὐτήν ποτε ὅκουν. ην δὲ ἡ μὲν κρηπὶς λίθου ξεστοῦ κογχυλιάτου, τὸ εὖρος πεντήκοντα ποδῶν καὶ τὸ ὕψος πεντήκοντα. ταύτην δὲ τὴν πόλιν πολιορκῶν ὁ Περσῶν βασιλεὺς οὐκ ἐδύνατο οὕτε χρόνῷ ἐλεῖν οὕτε βίᾳ · Ζεὺς δ' ἐμβροντήτους ποιεῖ τοὺς ἐνοικοῦντας καὶ οὕτως ἑάλω.

What was the length of the parasang? What meaning has  $\chi\rho\delta r\phi$  here? Of what ancient city were these the ruins? What historical error in  $M\eta\delta\omega$ ?

# 4. Translate (Plat. Apol. 11, 13): —

ἐννοήσωμεν δὲ καὶ τῆδε, ὡς πολλὴ ἐλπίς ἐστιν ἀγαθὸν αὐτὸ εἶναι. δυοῖν γὰρ θάτερόν ἐστι τὸ τεθνάναι 'ἢ γὰρ οἶον μηδὲν εἶναι, μηδ' αἴσθησιν μηδεμίαν μηδενὸς ἔχειν τὸν τεθνεῶτα, ἢ κατὰ τὰ λεγόμενα μεταβολή τις τυγγάνει οὖσα καὶ μετοίκησις τἢ ψυχἢ τοῦ τόπου τοῦ ἐνθένδε εἰς ἄλλον τόπον. καὶ εἴτε μηδεμία αἴσθησίς ἐστιν, ἀλλ' οἷον ὕπνος ἐπειδάν τις καθεύδων μηδ' ὄναρ μηδὲν ὁρᾳ, θαυμάσιον κέρδος ἃν εἴη ὁ θάνατος. . . . εἰ δ' αῦ οἷον ἀποδημῆσαί ἐστιν ὁ θάνατος ἐνθένδε εἰς ἄλλον τόπον καὶ ἀληθῆ ἐστι τὰ λεγόμενα, ὡς ἄρα ἐκεῖ εἰσὶν ἄπαντες οἱ τεθνεῶτες, τί μεῖζον ἀγαθὸν τούτου εἴη ἄν, ὡ ἄνδρες δικασταί;

How is the first conclusion,  $\theta a \nu \mu \acute{a} \sigma \iota o \nu \dots \theta \acute{a} \iota \sigma a \tau o s$ , proved? How the second,  $\tau \acute{\iota} \dots \check{a} \nu$ ?

## 5. Translate (*Hdt.* VII. 188):—

αί μὲν δὴ πρῶται τῶν νεῶν ὅρμεον πρὸς γῷ, ἄλλαι δ' ἐπ' ἐκείνησι ἐπ' ἀγκυρέων ὅτε γὰρ τοῦ αἰγιαλοῦ ἐώντος οὐ μεγάλου, πρόκροσσαι ώρμέοντο ἐς πόντον καὶ ἐπὶ ὀκτὰ νέας. ταύτην μὲν τὴν εὐφρόνην οὕτω ὅμα δὲ ὅρθρω, ἐξ αἰθρίης τε καὶ νηνεμίης τῆς θαλάσσης ζεσάσης, ἐπέπεσέ σφι χειμών τε μέγας καὶ πολλὸς ἄνεμος ἀπηλιώτης, τὸν

δή Έλλησποντίην καλέουσι οἱ περὶ ταῦτα τὰ χωρία οἰκημένοι. ὅσοι μὲν νῦν αὐτῶν αὐξόμενον ἔμαθον τὸν ἄνεμον, καὶ τοῖσι οὕτω εἶχε ὅρμου, οἱ δὶ ἔφθησαν τὸν χειμῶνα ἀνασπάσαντες τὰς νέας, καὶ αὐτοί τε περιῆσαν καὶ αἱ νέες αὐτῶν ὁσας δὲ τῶν νεῶν μεταρσίας ἔλαβε, τὰς μὲν ἐξέφερε πρὸς Ἰπνοὺς καλεομένους τοὺς ἐν Πηλίφ, τὰς δὲ ἐς τὸν αἰγιαλόν.

Where did this event take place?

[Begin a new page of the writing paper.]

GRAMMAR QUESTIONS ON THE FOREGOING.

- 1. Construction of  $d\delta\iota\kappa_{\eta}\theta\epsilon\iota$ 's (line 1). Complete the sentence  $\hat{\eta}$   $\gamma \hat{\alpha} \rho$   $dr \hat{\alpha} \gamma \kappa_{\eta}$ . To what verb does the negative in  $dr \hat{\alpha} \hat{\delta}$  belong?
- 2. Construction of  $\beta a\sigma\iota\lambda\hat{\epsilon}$ , of  $\tau\hat{\eta}s$   $d\rho\chi\hat{\eta}s$ , and of  $\tau o\acute{\nu}\tau o\nu$ . What other form of  $\delta\tau o\nu$  exists? What is the construction of the antecedent of  $\delta\tau o\nu$ ? What two forms of condition are illustrated in this passage?
- 3. Construction of  $\tau \hat{\eta} = \delta \lambda a$ ,  $\lambda \ell \theta o v$ ,  $\pi o \delta \hat{\omega} v$ . Where is  $\delta \hat{a} \lambda \omega$  found, and from what present?
- 4. Explain the form  $\theta \acute{a}\tau \epsilon \rho \sigma r$ , the attraction in  $\acute{e}r\theta \acute{e}r\partial \epsilon$  (line 5), the accent of  $\acute{e}l\sigma \acute{l}v$ .
- 5. Make a list of the Ionic forms, with the corresponding Attic in each case. Point out the two supplementary participles. Where does the apodosis of the relative clause  $\delta\sigma\sigma$   $\mu \epsilon \nu \kappa \tau \lambda$ , begin?

#### 1880.

[Any two passages may be omitted.]

1. Translate (Xen. An. I. 4, 11): -

καὶ Κῦρος μεταπεμψάμενος τοὺς στρατηγοὺς τῶν Ἑλληνων ἴλεγεν ὅτι ἡ ὁδὸς ἔσοιτο πρὸς βασιλέα μέγαν εἰς

Βαβυλώνα · καὶ κελεύει αὐτοὺς λέγειν ταῦτα τοῖς στρατιώταις καὶ ἀναπείθειν ἔπεσθαι. οἱ δὲ ποιήσαντες ἐκκλησίαν ἀπήγγελλον ταῦτα · οἱ δὲ στρατιῶται ἐχαλέπαινον τοῖς στρατηγοῖς, καὶ ἔφασαν αὐτοὺς πάλαι ταῦτ εἰδότας κρύπτειν, καὶ οὐκ ἔφασαν ἱέναι ἐὰν μή τις αὐτοῖς χρήματα διδῷ, ὥσπερ καὶ τοῖς προτέροις μετὰ Κύρου ἀναβῶσι παρὰ τὸν πατέρα τοῦ Κύρου, καὶ ταῦτα οὐκ ἐπὶ μάχην ἰόντων ἀλλὰ καλοῦντος τοῦ πατρὸς Κῦρον.

What would be the forms used in direct discourse for ἔσοιτο and τέναι? What would be the usual indirect form for ἐὰν ...διδŷ? Construction and subject of τόντων.

# 2. Translate (Xen. An. II. 4, 6): -

ποταμός δ' εἰ μέν τις καὶ ἄλλος ἄρα ἡμῖν ἐστι διαβατέος οὐκ οἶδα τον δ' οὖν Εὐφράτην οἴδαμεν ὅτι ἀδύνατον διαβηναι κωλυόντων πολεμίων. οὐ μὲν δή, ἃν μάχεσθαί γε δέη, ἱππεῖς εἰσιν ἡμῖν ξύμμαχοι, τῶν δὲ πολεμίων ἱππεῖς εἰσιν οἱ πλεῖστου ἀξιοι ὅστε νικῶντες μὲν τίνα ἃν ἀποκτείναιμεν; ἡττωμένων δὲ οὐδένα οἶόν τε σωθῆναι.

Construction of ημῶν (line 1), of τὸν Εὐφράτην. What is the condition of ἄν ἀποκτείναιμεν? Expand ηττωμένων into a conditional clause.

## 3. Translate (Xen. An. III. 4, 19): -

ἔνθα δὴ οί Ἑλληνες ἔγνωσαν ὅτι πλαίσιον ἰσόπλευρον πονηρὰ τάξις εἰη πολεμίων ἐπομενων. ... ἐπεὶ δὲ ταῦτα ἔγνωσαν οἱ στρατηγοί, ἐποιήσαντο εξ λόχους ἀνὰ ἐκατὸν ἄνδρας, καὶ λοχαγοὺς ἐπέστησαν καὶ ἄλλους πεντηκοντῆρας καὶ ἄλλους ἐνωμοτάρχας. οῦτοι δὲ πορευόμενοι οἱ λοχαγοί, ὁπότε μεν συγκύπτοι τὰ κέρατα, ὑπέμενον ὕστεροι, ώστε μὴ ἐνοχλεῦν τοῦς κέρασι, τότε δὲ παρῆγον ἔξωθεν

τών κεράτων. όπότε δὲ διάσχοιεν αἱ πλευραὶ τοῦ πλαισίου, τὸ μέσον ἀνεξεπίμπλασαν, εἰ μὲν στενότερον εἰη τὸ διέχον, κατὰ λόχους, εἰ δὲ πλατύτερον, κατὰ πεντηκοστῦς, εἰ δὲ πάνυ πλατύ, κατ᾽ ἐνωμοτίας.

What were the disadvantages of the  $\pi\lambda\alpha'\sigma\nu$  in indexpor? Describe the different formations indicated by  $\kappa\alpha\tau$  indexports,  $\kappa\alpha\tau$  indexports. In what tense, and from what present, is  $\epsilon\pi\epsilon\sigma\eta\sigma\alpha\nu$ ? Peculiarity of form in  $\sigma\tau\epsilon\nu\epsilon\tau\epsilon\rho\nu$ .

# 4. Translate (Xen. An. IV. 3, 10): —

καὶ ἀριστῶντι τῷ Ξενοφῶντι προσέτρεχον δύο νεανίσκω ἤδεσαν γὰρ πάντες ὅτι ἐξείη αὐτῷ καὶ ἀριστῶντι καὶ δειπνοῦντι προσελθεῖν καὶ, εἰ καθεύδοι, ἐπεγείραντα εἰπεῖν, εἴ τις τι ἔχοι τῶν πρὸς τὸν πόλεμον. . . . ἐκδύντες δ' ἔφασαν ἔχοντες τὰ ἐγχειρίδια γυμνοὶ ὡς νευσύμενοι διαβαίνειν πορευόμενοι δὲ πρόσθεν διαβῆναι πρὶν βρέξαι τὰ αἰδοῖα. εὐθὺς οὖν ὁ Ξενοφῶν αὐτός τε ἔσπενδε καὶ τοῖς νεανίσκοις ἐγχεῖν ἐκέλευε καὶ εὕχεσθαι τοῖς φήνασι θεοῖς τά τε ὀνείρατα καὶ τὸν πόρον, καὶ τὰ λοιπὰ ἀγαθὰ ἐπιτελέσαι.

Rule for the optative in  $\hat{\epsilon}\xi\hat{\epsilon}\eta$ , for the accusative in  $\hat{\epsilon}\pi\epsilon\gamma\hat{\epsilon}\hat{\epsilon}\eta$  parta, for the nominative in  $\hat{\epsilon}\kappa\hat{\delta}\hat{\epsilon}\nu\tau\hat{\epsilon}s$ . What was the dream referred to?

### 5. Translate (*Hdt.* VI. 117):—

συνήνεικε δε αὐτόθι θωῦμα γενέσθαι τοιύνδε · 'Λθηναῖον ἄνδρα 'Επίζηλον τον Κουφαγόρεω, ἐν τῷ συστάσι μαχόμενον τε καὶ ἄνδρα γινόμενον ἀγαθόν, τῶν ομμάτων στερηθήναι, οὕτε πληγέντα οὐδεν τοῦ σώματος οὕτε βληθέντα, καὶ τὸ λοιπὸν τῆς ζόης διατελέειν ἀπὸ τούτου τοῦ χρόνου ἐύντα τυφλόν. λέγειν δε αὐτὸν ἤκουσα περὶ τοῦ πάθεος

τοιόνδε τινὰ λόγον, ἄνδρα οἱ δοκέειν ὁπλίτην ἀντιστῆναι μέγαν, τοῦ τὸ γένειον τὴν ἀσπίδα πᾶσαν σκιάζειν τὸ δὲ φάσμα τοῦτο έωυτὸν μὲν παρεξελθεῖν, τὸν δὲ έωυτοῦ παραστάτην ἀποκτεῖναι.

Make a list of the Ionic forms in this passage, adding in each case the Attic form with accents. Difference of meaning between  $\pi\lambda\eta\gamma\acute{\epsilon}\nu\tau a$  and  $\beta\lambda\eta\theta\acute{\epsilon}\nu\tau a$ .

Describe the bridge over the Hellespont. Why were not the Spartans present at the battle of Marathon?

#### 1881.

## 1. Translate (Xen. An. I. 4, 8): -

Κύρος δὲ συγκαλέσας τοὺς στρατηγοὺς εἶπεν ἀπολελοίπασιν ήμᾶς Ξενίας καὶ Πασίων. ἀλλὶ εὖ γε μέντοι ἐπιστάσθωσαν ὅτι οὕτε ἀποδεδράκασιν οἶδα γὰρ ὅπη οἴχονται οὕτε ἀποπεφεύγασιν ἔχω γὰρ τριήρεις ὥστε ἐλεῦν τὸ ἐκείνων πλοῦον. ἀλλὰ μὰ τοὺς θεοὺς οὐκ ἔγωγε αὐτοὺς διώξω, οὐδὶ ἐρεῦ οὐδείς, ὡς ἐγὼ, ἔως μὲν ἄν παρῆ τις, χρῶμαι, ἐπειδὰν δὲ ἀπιέναι βούληται, συλλαβὼν καὶ αὐτοὺς κακῶς ποιῶ καὶ τὰ χρήματα ἀποσυλῶ. ἀλλὰ ἰύντων, εἰδότες ὅτι κακίους εἰσὶ περὶ ἡμᾶς ἡ ἡμεῖς περὶ ἐκείνους.

What distinction does Xenophon here make between  $\frac{\partial \pi \partial \rho}{\partial \nu}$  and  $\frac{\partial \pi}{\partial \nu}$  and  $\frac{\partial \pi}{\partial \nu}$ . Why does he use  $\mu$  and not  $\nu$  before  $\tau$  or  $\nu$  before  $\tau$  or  $\nu$  Rule for the mode in  $\tau$  app. Where is  $\nu$  before  $\nu$  found, and from what verb? For what longer form does  $\nu$  arioes stand? At what point in the march did this desertion take place?

## 2. Translate (Xen. An. II. 3, 10): -

καὶ ἐνετύγχανον τάφροις καὶ αὐλῶσιν ὕδατος πλήρεσιν, ώς μὴ δύνασθαι διαβαίνειν ἄνευ γεφυρῶν · ἀλλὶ ἐποιοῦντο

διαβάσεις ἐκ τῶν φοινίκων ος ἢσαν ἐκπεπτωκότες, τοὺς δὲ καὶ ἐξέκοπτον. καὶ ἐνταῦθα ἢν Κλέαρχον καταμαθεῖν ὡς ἐπεστάτει, ἐν μὲν τἢ ἀριστερᾳ χειρὶ τὸ δόρυ ἔχων, ἐν δὲ τἢ δεξιᾳ βακτηρίαν· καὶ εἴ τις αὐτῷ δοκοίη τῶν πρὸς τοῦτο τεταγμένων βλακεύειν, ἐκλεγόμενος τὸν ἐπιτήδειον ἔπαισεν ἄν, καὶ ἄμα αὐτὸς προσελάμβανεν εἰς τὸν πηλὸν ἐμβαίνων· ὥστε πᾶσιν αἰσχύνην εἶναι μὴ οὸ συσπουδάζειν.

Why is there an article with  $\delta \delta \rho v$  but none with  $\beta \alpha \kappa \tau \eta \rho i \alpha v$ ? Explain the mode in  $\delta \delta \kappa \delta i \eta$ , and the mode and tense in  $\delta \kappa \alpha \iota \sigma \delta v$   $\delta v$ . What sort of pronoun is  $\alpha v \tau \delta s$  as here used? Tell what is known of the life and death of Klearchos.

## 3. Translate (Xen. An. III. 5, 7): —

καὶ ἐνταῦθα πολλὴ ἀπορία ἢν. ἔνθεν μὲν γὰρ ὅρη ἢν ὑπερύψηλα, ἔνθεν δὲ ὁ ποταμὸς τοσοῦτος τὸ βάθος ὡς μηδὲ τὰ δόρατα ὑπερέχειν πειρωμένοις τοῦ βάθους. ἀπορουμένοις δ' αὐτοῖς προσελθών τις ἀνὴρ 'Ρόδιος εἶπεν ἐγὰ θέλω, ἢ ἄνδρες, διαβιβάσαι ὑμᾶς κατὰ τετρακισχιλίους ὁπλίτας, ἄν ἐμοὶ ὡν δέομαι ὑπηρετήσητε καὶ τάλαντον μισθὸν πορίσητε. ἐρωτώμενος δὲ ὅτου δέοιτο, ἀσκῶν, ἔφη, δισχιλίων δεήσομαι πολλὰ δ' ὁρῶ ταῦτα πρόβατα καὶ αἶγας καὶ βοῦς καὶ ὄνους, ἃ ἀποδαρέντα καὶ φυσηθέντα ἡαδίως ἃν παρέχοι τὴν διάβασιν. ... ὅτι μὲν οὖν οὐ καταδύσεσθε αὐτίκα μάλα εἴσεσθε · πᾶς γὰρ ἀσκὸς δύο ἄνδρας ἕξει τοῦ μὴ καταδῦναι · ὅστε δὲ μὴ ὀλισθάνειν ἡ ἵλη καὶ ἡ γῆ σχήσει.

What was the ordinary length of the Greek spear? Construction of  $\tau \circ \hat{\nu} \beta \acute{a} \theta \circ \nu s$ , of  $\mu \iota \sigma \theta \acute{\nu} \nu s$ . For what longer form does  $\delta \tau \circ \nu s$  stand? Explain the mode in  $\delta \acute{\epsilon} \circ \iota \tau \circ s$ . How may the gender of  $\tilde{a}$  be accounted for?

## 4. Translate (Xen. An. IV, 6, 17): -

ἐγὸ μὲν τοίνυν, ἴφη ὁ Ξενοφῶν, ἔτοιμός εἰμι τοὺς ὀπισθοφύλακας ἔχων, ἐπειδὰν δειπνήσωμεν, ἰέναι καταληψόμενος τὸ ὅρος. ἔχω δέ καὶ ἡγεμόνας · οἱ γὰρ γυμνῆτες τῶν ἐφεπομένων ἡμῖν κλωπῶν ἔλαβόν τινας ἐνεδρεύσαντες · καὶ τούτων πυνθάνομαι, ὅτι οὐκ ἄβατόν ἐστι τὸ ὅρος, ἀλλὰ νέμεται αἰξί καὶ βουσίν · ὅστε, ἐάνπερ ἄπαξ λάβωμέν τι τοῦ ὅρους, βατὰ καὶ τοῖς ὑποζυγίοις ἔσται. ἐλπίζω δὲ οὐδὲ τοὺς πολεμίους μενεῖν ἔτι, ἐπειδὰν ἰδωσιν ἡμᾶς ἐν τῷ ὁμοίφ ἐπὶ τῶν ἀκρῶν · οὐδὲ γὰρ νῦν ἐθέλουσι καταβαίνειν ἡμῦν εἰς τὸ ἴσον.

Explain the mode in δαπνήσωμεν. Present and perfect of καταληψόμενος. Construction of τούτων; of ήμεν. How did Xenophon come to be in command? Who else was associated with him?

[This may be substituted for 3 and 4 above.]

# 5. Translate (Hdt. VI. 104): -

ήγον δέ σφεα; στρατηγοί δέκα, τῶν ὁ δέκατος ἡν Μιλτιάδης, τοῦ τὸν πατέρα Κίμωνα τὸν Στησαγόρεω κατέλαβε φυγεῖν ἐξ ᾿Λθηνέων Πεισίστρατον τὸν Ἱπποκράτεος. οὐτος δὴ ὧν τότε ὁ Μιλτιάδης, ἤκων ἐκ τῆς Χερσονήσου καὶ ἐκπεφευγὼς διπλόον θάνατον, ἐστρατήγεε ᾿Λθηναίων · ἄμα μέν γὰρ οἱ Φοίνικες αὐτὸν οἱ ἐπιδιώξαντες μέχρι Ἦβρου, περὶ πολλοῦ ἐποιεῦντο λαβεῖν τε καὶ ἀναγαγεῖν παρὰ βασιλέα · ἄμα δὲ ἐκφυγόντα τε τούτους καὶ ἀπικόμενον ἐς τὴν ἑαυτοῦ, δοκέοντά τε εἶναι ἐν σωτηρίῃ ἤδη, τὸ ἐνθεῦτέν μιν οἱ ἐχθροὶ ὑποδεξάμενοι καὶ ὑπὸ δικαστήριον αὐτὸν ἀγαγόντες ἐδίωξαν τυραννίδος τῆς ἐν Χερσονήσου. ἀποφυγὼν δὲ καὶ τούτους, στρατηγὸς οὕτω ᾿Λθηναίων ἀπεδέχθη, αἰρεθεὶς ὑπὸ τοῦ δήμου.

Make a list of the Ionic forms in this passage, adding in each case the Attic form, with accents. Where was Imbros? Construction of ξωυτοῦ; of τυραννίδος.

#### 1882.

## 1. Translate (Xen. An. I. 3, 20): -

ἔδοξε ταῦτα, καὶ ἄνδρας ἐλόμενοι σὰν Κλεάρχω πέμπουσιν, οἱ ἠρώτων Κῦρον τὰ δόξαντα τῆ στρατιᾳ. ὁ δὶ ἀπεκρίνατο, ὅτι ἀκούοι ᾿Λβροκόμαν, ἐχθρὸν ἄνδρα, ἐπὶ τῷ Εὐφράτη ποταμῷ εἶναι, ἀπέχοντα δώδεκα σταθμούς πρὸς τοῦτον οὖν ἔφη βούλεσθαι ἐλθεῖν κἂν μὲν ἦ ἐκεῖ, τὴν δίκην ἔφη χρήζειν ἐπιθεῖναι αὐτῷ, ἡν δὲ φεύγῃ, ἡμεῖς ἐκεῖ πρὸς ταῦτα βουλευσόμεθα. ἀκούσαντες δὲ ταῦτα οἱ αἰρετοὶ ἀπαγγέλλουσι τοῖς στρατιωταῖς τοῖς δὲ ὑποψία μὲν ἦν, ὅτι ἄγει πρὸς βασιλέα, ὅμως δὲ ἐδόκει ἔπεσθαι.

Construction of  $\tau \grave{a}$  δόξαντα. Rule for mode in ἀκούοι. Form of condition in  $\mathring{\eta}_{\nu}$  δὲ . . . βουλευσόμεθα. Where did Cyrus die? Date of his expedition.

### 2. Translate (Xen. An. II. 4, 15): -

μετὰ δὲ τὸ δεῖπνον ἔτυχον ἐν περιπάτῷ ὄντες πρὸ τῶν ὅπλων Πρόξενος καὶ Ξενοφῶν καὶ προσελθῶν ἄνθρωπός τις ἠρώτησε τοὺς προφύλακας ποῦ ἃν ἴδοι Πρόξενον ἡ Κλέαρχον · ἀπεὶ δὲ Πρόξενος εἶπεν ὅτι αὐτός εἰμι ὃν ζητεῖς, εἶπεν ὁ ἄνθρωπος τάδε · "Επεμψέ με 'Λριαῖος καὶ 'Λρτάοζος, πιστοὶ ὄντες Κύρῷ καὶ ὑμῖν εῦνοι, καὶ κελεύουσι ψυλάττεσθαι, μὴ ὑμῖν ἐπιθῶνται τῆς νυκτὸς οἱ βάρβαροι · ἔστι δὲ στράτευμα πολὺ ἐν τῷ πλησίον παραδείσῷ. καὶ ἐπὶ τὴν γέψυραν τοῦ Τίγρητος ποταμοῦ πέμψαι κελεύουσι ψυλακήν, ὡς διανοεῖται αὐτὴν λῦσαι Τισσαφέρνης τῆς νυκτός, ἐὰν δύνηται, ὡς μὴ διαβῆτε ἀλλὶ ἐν μέσῷ ἀποληφθῆτε τοῦ ποταμοῦ καὶ τῆς διώρυχος.

Construction of  $\tau \hat{\eta}$ ;  $\nu \kappa \tau \hat{\sigma}_{S}$ ; of  $\pi \lambda \eta \sigma \hat{\tau}_{OV}$ . Which of the participles in this passage are circumstantial and which supplementary? Sketch the life and character of Proxenos.

# 3. Translate (Xen. An. III. 4, 34): -

ηνίκα δ' ην ήδη δείλη, ώρα ην ἀπιέναι τοῖς πολεμίοις · οὕποτε γὰρ μεῖον ἀπεστρατοπεδεύοντο οἱ βάρβαροι τοῦ Ἑλληνικοῦ ἐξήκοντα σταδίων, φοβούμενοι μὴ τῆς νυκτὸς οἱ Ἑλληνες ἐπιθῶνται αὐτοῖς. πονηρὸν γὰρ νυκτός ἐστι στράτευμα Περσικόν · οἴ τε γὰρ ἴπποι αὐτοῖς δέδενται καὶ ὡς ἐπὶ τὸ πολὺ πεποδισμένοι εἰσὶ τοῦ μὴ φεύγειν ἕνεκα εἰ λυθείησαν, ἐάν τέ τις θόρυβος γίγνηται, δεῖ ἐπισάξαι τὸν ἵππον Πέρση ἀνδρὶ καὶ χαλινῶσαι δεῖ καὶ θωρακισθέντα ἀναβῆναι ἐπὶ τὸν ἵππον. ταῦτα δὲ πάντα χαλεπὰ νύκτωρ καὶ θορύβου ὄντος.

Construction of τοῦ Ἑλληνικοῦ; of σταδίων. What other case would be more usual than ἀνδρί in such a connection? What distance is indicated by ἐξήκοντα σταδίων?

# 4. Translate (Xen. An. IV. 5, 7) —

ἐντεῦθεν δὲ τὴν ἐπιοῦσαν ἡμέραν ὅλην ἐπορεύοντο διὰ χιώνος καὶ πολλοὶ τῶν ἀνθρώπων ἐβουλιμίασαν. Ξενοφῶν δ' ὀπισθοφυλακῶν καὶ καταλαμβάνων τοὺς πίπτοντας τῶν ἀνθρώπων ἢγνόει ὅ, τι τὸ πάθος εἴη. ἐπειδὴ δὲ εἶπέ τις αἰτῷ τῶν ἐμπείρων ὅτι σαφῶς βουλιμιῶσι, κὰν τι φάγωσιν, ὰναστήσονται, περιιὼν περὶ τὰ ὑποζύγια, εἴ πού τι ὑρῷη βρωτών, διεδίδου καὶ διέπεμπε διδύντας τοὺς δυναμένους παρατρέχειν τοῖς βουλιμιῶσιν.

Construction of 'μέραν; of τῶν ἐμπείρων. Rule for the mode in εἴη; in ὁρώη. Derivation of ἐβωνλιμίασαν, and composition of its primitive.

[Either of the following may be substituted for either of the preceding passages.]

## 5. Translate (Xen. An. V. 6, 11):-

ἐπεὶ δὲ ταῦτα ἔλεξεν, οἱ μὲν ὑπώπτευον φιλίας ἕνεκα τῆς Κορύλα λέγειν · καὶ γὰρ ῆν πρόξενος αὐτῷ · οἱ δὲ καὶ ὡς δῶρα ληψόμενον διὰ τὴν ξυμβουλὴν ταύτην · οἱ δὲ ὑπώπτευον καὶ τούτου ἕνεκα λέγειν, ὡς μὴ πεζῆ ἰόντες τὴν Σινωπέων τι χώραν κακὸν ἐργάζοιντο. οἱ δὶ οὖν Ἔλληνες ἐψηφίσαντο κατὰ θάλατταν τὴν πορείαν ποιεῖσθαι. μετὰ ταῦτα Ξενοφῶν εἶπεν · 3Ω Σινωπεῖς, οἱ μὲν ἄνδρες ῆρηνται πορείαν ἢν ὑμεῖς ξυμβουλεύετε · οὕτω δὲ ἔχει · εἰ μὲν πλοῖα ἔσεσθαι μέλλει ἰκανὰ ἀριθμῷ ὡς ἕνα μὴ καταλείπεσθαι ἐνθάδε, ἡμεῖς δὲ πλέοιμεν ἄν · εἰ δὲ μέλλοιμεν οἱ μὲν καταλείπεσθαι οἱ δὲ πλεύσεσθαι, οὐκ ἂν ἐμβαίημεν εἰς τὰ πλοῖα. γιγνώσκομεν γὰρ ὅτι, ὅπου μὲν ἄν κρατῶμεν, δυναίμεθ ἂν καὶ σώζεσθαι καὶ τὰ ἐπιτήδεια ἔχειν · εἰ δὲ που ῆττους τῶν πολεμίων ληφθησόμεθα, εὕδηλον δὴ ὅτι ἐν ἀνδραπόδων χώρα ἐσόμεθα.

Construction of  $\lambda \eta \psi \delta \mu \epsilon v \sigma v$ ; of  $\tau \eta \nu \Sigma v$ .  $\chi \delta \rho a v$ ; of  $\tau \delta v \pi \delta \lambda \epsilon \mu \iota \omega v$ . Present of  $\eta \rho \eta \tau \tau a$ ; of  $\pi \lambda \epsilon \iota \sigma \epsilon \sigma \theta a \iota$ . Who was the speaker to whom  $\delta \lambda \epsilon \xi \epsilon v$  refers? Where was Sinope? How and whither did the Greeks go from it?

# 6. Translate (Xen. Hell. II. 3, 56):—

οί δ' ἀπήγαγον τον ἄνδρα διὰ τῆς ἀγορᾶς, μάλα μεγάλη τῆ φωνῆ δηλοῦντα οἶα ἔπασχε. λέγεται δὲ εν ῥῆμα καὶ τοῦτο αὐτοῦ · ὡς εἶπεν ὁ Σάτυρος ὅτι οἰμώξοιτο εἰ μὴ τιωπήσειεν, ἐπήρετο · \* Αν δὲ σιωπῶ οὐκ ἄρα, ἔφη, οἰμώξομαι ; καὶ ἐπεί γε ἀποθνήσκειν ἀναγκαζόμενος τὸ κώνειον ἔπιε, τὸ λειπόμενον ἔφασαν ἀποκοτταβίσαντα εἰπεῖν αὐτόν · Κριτία τοῦτ ἔστω τῷ καλῷ. καὶ τοῦτο μὲν οὐκ ἀγνοῶ, ὅτι ταῦτα ἀποφθέγματα οὐκ ἀξιόλογα ·

ἐκεῖνο δὲ κρίνω τοῦ ἀνδρὸς ἀγαστόν, τὸ τοῦ θανάτου παρεστηκότος μήτε τὸ φρόνιμον μήτε τὸ παιγνιῶδες ἀπολιπεῖν ἐκ τῆς ψυχῆς.

Construction of τοῦ ἀνδρός. Change the sentence ὅτι . . . στωπήστετει into the form of oratio recta. Present of ἐπήρετο. Tense of ἔπιε. Who was this man, and what was his history?

# 7. Translate (*Hdt*. VII. 144):—

έτέρη τε Θεμιστοκλέι γνώμη ἔμπροσθε ταύτης ἐς καιρὸν ηρίστευσε, ὅτε, ᾿Λθηναίοισι γενομένων χρημάτων μεγάλων ἐν τῷ κοινῷ, τὰ ἐκ τῶν μετάλλων σφι προσῆλθε τῶν ἀπὸ Λαυρείου, ἔμελλον λάξεσθαι ὀρχηδὸν ἕκαστος δέκα δραχμάς. τότε Θεμιστοκλέης ἀνέγνωσε ᾿Λθηναίους, τῆς διαιρέσιος ταύτης παυσαμένους, νέας τούτων τῶν χρημάτων ποιήσασθαι διηκοσίας ἐς τὸν πόλεμον, τὸν πρὸς Λίγινήτας λέγων. οὐτος γὰρ ὁ πόλεμος συστὰς ἔσωσε τότε τὴν Ἑλλάδα, ἀναγκάσας θαλασσίους γενέσθαι ᾿Λθηναίους. αἱ δὲ ἐς τὸ μὲν ἐποιήθησαν οὐκ ἐχρήσθησαν, ἐς δέον δὲ οὕτω τῆ Ἑλλάδι ἐγένοντο. αὖταί τε δὴ αἱ νέες τοῖσι ᾿Λθηναίοισι προποιηθείσαι ὑπῆρχον, ἐτέρας τε ἔδεε προσναυπηγέεσθαι.

Make a list of the Ionic forms, adding in each case the Attic form, with accents. Where was Laurion? How much was δέκα δραχραί? What difficulties are in the way of taking this account literally?

#### 1883.

[Any two of the passages may be omitted.]

## 1. Translate (Xen. An. I. 7, 3):—

Κύρος δὲ συγκαλέσας τοὺς στρατηγοὺς τῶν Ἑλλήνων συνεβουλεύετό τε πῶς ἂν τὴν μάχην ποιοῖτο καὶ αὐτὸς

παρήνει θαρρύνων τοιάδε · <sup>3</sup>Ω ἄνδρες "Ελληνες, οὐκ ἀνθρώπων ἀπορῶν βαρβάρων συμμάχους ὑμᾶς ἄγω, ἀλλὰ νομίζων ἀμείνους καὶ κρείττους πολλῶν βαρβάρων ὑμᾶς εἶναι, διὰ τοῦτο προσέλαβον. ὅπως οὖν ἔσεσθε ἄνδρες ἄξιοι τῆς ἐλευθερίας ἦς κέκτησθε καὶ ἦς ὑμᾶς ἐγὼ εὐδαιμονίζω. εὖ γὰρ ἴστε ὅτι τὴν ἐλευθερίαν ἑλοίμην ἄν ἀνθ' ὧν ἔχω πάντων. ὅπως δὲ καὶ εἰδῆτε εἰς οἰον ἔρχεσθε ἀγῶνα, ὑμᾶς εἰδὼς διδάξω.

Construction of  $dr\theta\rho\phi\pi\omega\nu$ ,  $\sigma\nu\mu\mu\dot{\alpha}\chi\sigma\nu$ s,  $\delta\nu$ . To what does  $\tau\sigma\delta\tau\sigma$  refer? Meaning of the preposition in  $\pi\rho\sigma\sigma\dot{\epsilon}\lambda\alpha\beta\sigma\nu$ . Explain the difference between the two uses of  $\delta\pi\omega$ s in the passage.

# 2. Translate (Xen. An. II. 5, 32 f.):—

οὐ πολλῷ δὲ ὕστερον ἀπὸ τοῦ αὐτοῦ σημείου οί τ' ἔνδον συνελαμβάνοντο καὶ οἱ ἔξω κατεκόπησαν. μετὰ δὲ ταῦτα τῶν βαρβάρων τινὲς ἱππέων διὰ τοῦ πεδίου ἐλαύνοντες ιἔτινι ἐντυγχάνοιεν "Ελληνι ἡ δούλῳ ἡ ἐλευθέρω πάντας ἔκτεινον. οἱ δὲ "Ελληνες τήν τε ἱππασίαν αὐτῶν ἐθαύμαζον ἐκ τοῦ στρατοπέδου ὁρῶντες καὶ ὅ τι ἐποίουν ἡμφεγνόουν, πρὶν Νίκαρχος 'Αρκὰς ἡκε φεύγων τετρωμένος εἰς τὴν γαστέρα καὶ τὰ ἔντερα ἐν ταῖς χερσὶν ἔχων καὶ εἶπε πάντα τὰ γεγενημένα.

Construction of  $\pi o \lambda \lambda \hat{\phi}$ ,  $a \dot{v} \tau \hat{\omega} v$ . Peculiarity of form in  $i\mu \phi \epsilon \gamma r \acute{o} \omega v$ . Use of the mode in  $\dot{\epsilon} v \tau v \gamma \chi \acute{a} r \omega \epsilon v$ . What would  $\dot{\epsilon} \pi o \acute{a} \omega v$  be in indirect discourse? What is referred to in

πάντα τὰ γεγενημένα?

# 3. Translate (Xen. An. III. 2, 2 f.): -

ω ἄνδρες στρατιωται, χαλεπὰ μὲν τὰ παρόντα, ὁπότε ἀνδρων στρατηγων τοιούτων στερόμεθα, πρὸς δ' ἔτι καὶ οἱ ἀμφὶ ᾿Λριαῖον οἱ πρόσθεν σύμμαχοι ὄντες προδεδώκασιν

. .

ήμας · ὅμως δὲ δεῖ ἐκ τῶν παρὅντων ἄνδρας ἀγαθοὺς τελέθειν καὶ μὴ ὑφίεσθαι, ἀλλὰ πειρᾶσθαι ὅπως ἢν μὲν δυνώμεθα καλῶς νικῶντες σωζώμεθα · εἰ δὲ μή, ἀλλὰ καλῶς γε ἀποθνήσκωμεν, ὑποχείριοι δὲ μηδέποτε γενώμεθα ζῶντες τοῖς πολεμίοις. οἶμαι γὰρ ἂν ἡμᾶς τοιαῦτα παθεῖν οἱα τοὺς ἐχθροὺς οἱ θεοὶ ποιήσειαν.

Construction of  $\tilde{a}r\delta\rho as$ ,  $\tau o \tilde{v}s \epsilon \chi \theta \rho o \tilde{v}s$ . What part of speech is  $\pi \rho \delta s$  here? Point out the attributive and circumstantial participles. With what does  $\tilde{a}v$  belong?

# 4. Translate (Xen. An. IV. 7, 15 f.): -

ἐντεῦθεν ἐπορεύθησαν διὰ Χαλύβων. οὖτοι ἣσαν ὧν διῆλθον ἀλκιμώτατοι, καὶ εἰς χεῖρας ἤεσαν. εἶχον δὲ θώρακας λινοῦς μέχρι τοῦ ἤτρου, ἀντὶ δὲ τῶν πτερύγων σπάρτα πυκνὰ ἐστραμμένα. εἶχον δὲ καὶ κνημίδας καὶ κράνη, καὶ παρὰ τὴν ζώνην μαχαίριον ὅσον ξυήλην Λακωνικήν, ῷ ἔσφαττον ὧν κρατεῖν δύναιντο, καὶ ἀποτέμνοντες ὰν τὰς κεφαλὰς ἔχοντες ἐπορεύοντο, καὶ ἢδον καὶ ἐχόρευον ὁπότε οἱ πολέμιοι αὐτοὺς ὄψεσθαι ἔμελλον. εἶχον δὲ καὶ δύρυ ὡς πεντεκαίδεκα πήχεων, μίαν λόγχην ἔχον.

Construction of  $\xi \nu \dot{\eta} \lambda \eta \nu$ ,  $\pi \dot{\eta} \chi \epsilon \omega \nu$ . With what does  $\check{a}\nu$  belong? In what respects did the Greek spear differ from this one? How long, in time and distance, was the return march from Kunaxa to the sea?

# 5. Translate (Xen. Hellen. II. 3): -

ὰ δ' αὖ εἶπεν, ώς ε΄γώ εἰμι οἶος ἀεί ποτε μεταβάλλεσθαι, κατανοήσατε καὶ ταῦτα. τὴν μὲν γὰρ τῶν τετρακοσίων πολιτείαν καὶ αὐτὸς δήπου ὁ δῆμος εψηφίσατο, διδασκόμενος ὡς οἱ Λακεδαιμόνιοι πάση πολιτεία μᾶλλον ἂν ἢ δημοκρατία πιστεύσειαν. ἐπεὶ δέ γε ἐκεῖνοι μὲν οὐδὲν

ἀνίεσαν, οἱ δὲ ἀμφὶ ᾿Αριστοτέλην καὶ Μελάνθιον καὶ ᾿Αρίσταρχον, στρατηγοῦντες, φανεροὶ ἐγένοντο ἐπὶ τῷ χώματι ἔρυμα τειχίζοντες, ἐς ὁ ἐβούλοντο τοὺς πολεμίους δεξάμενοι ὑφ᾽ αὐτοῖς καὶ τοῖς ἐτέροις τὴν πόλιν ποιήσασθαι,— εἰ ταῦτ᾽ αἰσθόμενος ἐγὼ διεκώλυσα, τοῦτ᾽ ἔστι προδότην εἶναι τῶν φίλων;

Explain the reference in  $\hat{\tau}\omega\nu$   $\tau\epsilon\tau\rho\alpha\kappa\sigma\sigma'\omega\nu$ . When did the event occur? Where was this  $\hat{\chi}\omega\mu\alpha$ ? What form of conditional sentence is seen in the last clause? What nickname was given to the speaker, expressing the idea olos ...  $\mu\epsilon\tau\alpha\beta\dot{\alpha}\lambda\lambda\epsilon\sigma\theta\alpha$ ?

## 6. Translate (Xen. Mem. I. 1): -

βουλεύσας γάρ ποτε καὶ τὸν βουλευτικὸν ὅρκον ὀμόσας, ἐν ῷ ἡν κατὰ τοὺς νόμους βουλεύσειν, ἐπιστάτης ἐν τῷ δήμω γενόμενος, ἐπιθυμήσαντος τοῦ δήμου παρὰ τοὺς νόμους ἐννέα στρατηγοὺς μιᾳ ψήφω τοὺς ἀμφὶ Θράσυλλον καὶ Ἐρασινίδην ἀποκτεῖναι πάντας, οὐκ ἡθέλησεν ἐπιψηφίσαι, ὀργιζομένου μὲν αὐτῷ τοῦ δήμου, πολλῶν δὲ καὶ δυνατῶν ἀπειλούντων ἀλλὰ περὶ πλείονος ἐποιήσατο εὐορκεῖν ἡ χαρίσασθαι τῷ δήμω παρὰ τὸ δίκαιον καὶ φυλάξασθαι τοὺς ἀπειλοῦντας.

What sort of accusative is τρκου? In what year and after what battle did this event take place? What was the illegality in the proposed vote? From what officers was the ἐπιστάτης selected and how often?

### HOMER.

#### 1876.

[All Greek words are to be written with accents.]

1. Translate (Il. I. 254-258): —

" Ω πόποι, ἢ μέγα πένθος `Αχαιίδα γαΐαν ἰκάνει. ἢ κεν γηθήσαι Πρίαμος Πριάμοιό τε παΐδες, ἄλλοι τε Τρῶες μέγα κεν κεχαροίατο θυμῷ, εἰ σφῶϊν τάδε πάντα πυθοίατο μαρναμένοιιν, οὲ περὶ μὲν βουλὴν Δαναῶν, περὶ δὲ ἐστὲ μάχεσθαι."

Make a list of the forms in these lines peculiar to Homer, adding, in each case, the corresponding Attic form.

Explain the form κεχαροίατο.

2. Translate (Il. II. 142-146):—

"Ως φάτο, τοῖσι δὲ θυμὸν ἐνὶ στήθεσσιν ὅρινεν πᾶσι μετὰ πληθὺν, ὅσοι οὐ βουλῆς ἐπάκουσαν. κινήθη δ' ἀγορὴ φὴ κύματα μακρὰ θαλάσσης, πόντου Ἰκαρίοιο, τὰ μέν τ' Εὖρός τε Νότος τε ἄρορ' ἐπαίξας πατρὸς Διὸς ἐκ νεφελάων.

Mark on your writing-paper the feet of the first two lines, adding the rule for the quantity of each syllable in the second line.

What is the tense of ὅρορε? What is meant by πόντου Ἰκαρίοιο?

3. Translate (Il. III. 295–302):—

οἶνον δ' ἐκ κρητῆρος ἀφυσσάμενοι δεπάεσσιν ἔκχεον, ἦδ' εὕχοντο θεοῖς αἰειγενέτησιν · δδε δέ τις εἴπεσκεν 'Αχαιῶν τε Τρώων τε ·

"Ζεῦ κύδιστε μέγιστε, καὶ ἀθάνατοι θεοὶ ἄλλοι, όππότεροι πρότεροι ὑπὲρ ὅρκια πημήνειαν, ἄδέ σφ' ἐγκέφαλος χαμάδις ῥέοι ὡς ὅδε οἶνος, αὐτῶν καὶ τεκέων, ἄλοχοι δ' ἄλλοισι δαμεῖεν." "Ως ἔφαν, οὐδ' ἄρα πώ σφιν ἐπεκραίαινε Κρονίων.

Supply what is gone from  $\sigma\phi$ . Give the Attic prose forms for  $\check{\epsilon}\kappa\chi\epsilon\sigma\nu$ , aleigevéthour,  $\hat{\omega}_{S}$   $\check{\epsilon}\phi\alpha\nu$ . Explain the mode of  $\acute{\rho}\acute{\epsilon}\omega$ .

#### 1877.

[All Greek words are to be written with accents.]

1. Translate (Il. I. 274-284): --

" ἀλλὰ πίθεσθε καὶ ὕμμες, ἐπεὶ πείθεσθαι ἄμεινον. μήτε σὺ τόνδ', ἀγαθός περ ἐὼν, ἀποαίρεο κούρην, ἀλλ' ἔα, ὥς οἱ πρῶτα δόσαν γέρας υἷες 'Αχαιῶν · μήτε σὺ, Πηλείδη, θέλ' ἐριζέμεναι βασιλῆϊ ἀντιβίην, ἐπεὶ οὕποθ' ὁμοίης ἔμμορε τιμῆς σκηπτοῦχος βασιλεὺς, ὧτε Ζεὺς κῦδος ἔδωκεν. εἰ δὲ σὺ κάρτερός ἐσσι, θεὰ δέ σε γείνατο μήτηρ, ἀλλ' ὅγε φέρτερός ἐστιν, ἐπεὶ πλεόνεσσιν ἀνάσσει. 'Ατρείδη, σὺ δὲ παῦε τεὸν πένος ' αὐτὰρ ἔγωγε λίσσομ' 'Αχιλλῆϊ μεθέμεν χόλον, ὅς μεγα πᾶσιν ἕρκος ' Λχαιοῦσιν πέλεται πολέμοιο κακοῦο."

Make a list of the Homeric forms in these lines, adding, in each case, the corresponding Attic form.

Who is referred to by  $\theta \epsilon \hat{a}$ ? What Latin form corresponds in form with  $\tau \epsilon \hat{o} \nu$ ?

Translate (Il. II. 339-343): —
 "πη δη συνθεσίαι τε καὶ ὅρκια βήσεται ημῖν;
 ἐν πυρὶ δη βουλαί τε γενοίατο μήδεά τ' ἀνδρῶν,

σπουδαί τ' ἄκρητοι καὶ δεξιαὶ, ἢς ἐπέπιθμευ · αὕτως γάρ ρ' ἐπέεσσ' ἐριδαίνομευ, οὐδέ τι μῆχος εὐρέμευαι δυνάμεσθα, πολύν χρόνον ἐνθάδ' ἐόντες."

Where is  $\epsilon \pi \epsilon \pi i \theta \mu \epsilon r$  made? What is the derivation of  $\sigma \pi \sigma r \delta a'$ ? the reason for the gender of  $\delta \epsilon \xi i a'$ ? What other forms in Homer of  $\epsilon \pi \epsilon \epsilon \sigma \sigma r$ ? What length of time denoted by  $\pi \delta \lambda e \nu \chi \rho \delta \nu \rho r$ ?

3. Translate (Il. III. 154-159):—
οί δ' ώς οὖν εἰδονθ' Ἑλένην ἐπὶ πύργον ἰοῦσαν,
ῆκα πρὸς ἀλλήλους ἔπεα πτερόεντ' ἀγόρευον·
"Οὐ νέμεσις Τρῶας καὶ ἐϋκνήμιδας ᾿Λχαιοὺς
τοιῆδ' ἀμφὶ γυναικὶ πολὺν χρόνον ἄλγεα πάσχειν·
αἰνῶς ἀθανάτησι θεῆς εἰς ὧπα ἔοικεν.
ἀλλὰ καὶ ὧς, τοίη περ ἐοῦσ', ἐν νηυσὶ νεέσθω."

Mark on your writing-paper the feet of the second and third lines, adding the rule for the quantity of each syllable of the third line.

#### 1878.

[All Greek words to be written with the accent.]

1. Translate (Il. I. 522–528):—

"ἀλλὰ σὺ μὲν νῦν αὖτις ἀπόστιχε, μή τι νοήση 
"Ἡρη ' ἐμοὶ δέ κε ταῦτα μελήσεται, ὄφρα τελέσσω. 
εἰ δ' ἄγε τοι κεφαλῆ κατανεύσομαι, ὄφρα πεποίθης 
τοῦτο γὰρ ἐξ ἐμέθεν γε μετ' ἀθανάτοισι μέγιστον 
τέκμωρ ' οὐ γὰρ ἐμὸν παλινάγρετον οὐδ' ἀπατηλὸν 
οὐδ' ἀτελεύτητον, ὅ τι κεν κεφαλῆ κατανεύσω." 
ἢ, καὶ κυανέησιν ἐπ' ὀφρύσι νεῦσε Κρονίων.

Make a list of the Homeric forms in these lines, adding, in each case, the corresponding Attie form. Point out the case of *tmesis*.

Who is Κρονίων, and what other form of the name occurs?

Mark on your writing-paper the feet of the first two lines, adding the rule for the quantity of each syllable of the second line. Give, as above, the Homeric forms in the fifth line.

What was determined by the process described in the first two lines? Why are the words åψ δρόων added? What was the issue of the combat that followed?

### 1879.

Translate (Il. I. 193–200): —
 ἕως ὁ ταῦθ' ὅρμαινε κατὰ φρένα καὶ κατὰ θυμόν,
 ἕλκετο δ' ἐκ κολεοῖο μέγα ξίφος, ἦλθε δ' ᾿Λθήνη
 οὐρανόθεν · πρὸ γὰρ ἦκε θεὰ λευκώλενος "Πρη,

ἄμφω όμῶς θυμῷ φιλέουσά τε κηδομένη τε.
στῆ δ' ὅπιθεν, ξανθῆς δὲ κόμης ἔλε Ηηλείωνα,
οἴφ φαινομένη · τῶν δ' ἄλλων οὔ τις ὁρᾶτο.
θάμβησεν δ' ᾿Αχιλεὺς, μετὰ δ' ἐτράπετ', αὐτίκα δ'
ἔγνω

Παλλάδ' 'Λθηναίην · δεινώ δέ οἱ ὅσσε φάανθεν.

Point out and explain the instance of  $\delta \xi$  in the apodosis. Who are meant by  $\ddot{a}\mu\phi\omega$  (line 4)? Give the Attic forms for  $\delta\rho\hat{a}\tau\sigma$  (line 6) and  $\phi\dot{a}a\tau\theta\epsilon r$  (line 8). What is the construction of  $\kappa\dot{o}\mu\eta\varsigma$  (line 5)?

2. Translate (Il. II. 211-219):—

άλλοι μέν ρ' ἔζοντο, ἐρήτυθεν δὲ καθ' ἔδρας ·
Θερσίτης δ' ἔτι μοῦνος ἀμετροεπης ἐκολῷα,
ὅς ρ' ἔπεα φρεσὶν ἦσιν ἄκοσμά τε πολλά τε ἤδη,
μάψ, ἀτὰρ οὐ κατὰ κόσμον, ἐριζέμεναι βασιλεῦσιν,
ἀλλ' ὅ τί οἱ εἴσαιτο γελοίιον ᾿Αργείοισιν
ἔμμεναι. αἴσχιστος δὲ ἀνηρ ὑπὸ Ἦλιον ῆλθεν.
φολκὸς ἔην, χωλὸς δ' ἔτερον πόδα · τὼ δέ οἱ ὤμω
κυρτώ, ἐπὶ στηθος συνοχωκότε · αὐτὰρ ὕπερθεν
φοξὸς ἔην κεφαλην, ψεδνη δ' ἐπενήνοθε λάχνη.

Mark on the writing-paper the quantities of the syllables in lines 5-7, giving the reason for the variation in  $\delta \hat{i}$ .

Explain the form  $\sigma v v o \chi \omega \kappa \acute{o} \tau \epsilon$  (line 8). Why the accusative and not the dative after  $\acute{o} \pi \acute{o}$  (line 6)?

3. Translate (Il. III. 182-190):—

" ὁ μάκαρ ᾿Ατρείδη, μοιρηγενές, ολβιόδαιμον, ἡ ρά νύ τοι πολλοὶ δεδμήατο κοῦροι ᾿Αχαιῶν. ἤδη καὶ Φρυγίην εἰσήλυθον ἀμπελόεσσαν, ἔνθα ἰδον πλείστους Φρύγας ἀνέρας αἰολοπώλους, λαοὺς ᾿Οτρῆος καὶ Μύγδονος ἀντιθέοιο •

καὶ γὰρ ἐγὼν ἐπίκουρος ἐὼν μετὰ τοῖσιν ἐλέχθην ἤματι τῷ ὅτε τ' ἦλθον 'Αμαζόνες ἀντιάνειραι ' ἀλλ' οὐδ' οἱ τόσοι ἦσαν ὅσοι ἐλίκωπες 'Αχαιοί.''

Make a list of the dialectic peculiarities, adding, in each case, the corresponding Attic prose form. To whom does of (line 8) refer?

#### 1880.

1. Translate (Il. I. 172-181): -

τὸν δ' ἠμείβετ' ἔπειτα ἄναξ ἀνδρῶν 'Λγαμέμνων ' 'φεῦγε μάλ', εἴ τοι θυμὸς ἐπέσσυται · οὐδέ σ' ἔγωγε λίσσομαι εἵνεκ' ἐμεῖο μένειν · πάρ' ἔμοιγε καὶ ἄλλοι οἵ κέ με τιμήσουσι, μάλιστα δὲ μητίετα Ζεύς. ἔχθιστος δέ μοί ἐσσι διοτρεφέων βασιλήων · αἰεὶ γάρ τοι ἔρις τε φίλη πόλεμοί τε μάχαι τε. εἰ μάλα καρτερός ἐσσι, θεός που σοὶ τό γ' ἔδωκεν. οἴκαδ' ἰὼν σὺν νηυσί τε σῆς καὶ σοῖς ἐτάροισιν Μυρμιδόνεσσιν ἄνασσε. σέθεν δ' ἐγὼ οὐκ ἀλεγίζω, οὐδ' ὅθομαι κοτέοντος."

Make a list of the Homeric forms in this passage, giving, in each case, the corresponding Attic word, with accents.

Compare  $\xi \chi \theta \iota \sigma \tau \sigma s$ ,  $\kappa a \rho \tau \epsilon \rho \sigma s$ . Where is  $\epsilon \pi \epsilon \sigma \sigma \sigma \tau \sigma t$  found, and from what present is it?

2. Translate (Il. II. 265-274): -

δις ἄρ' ἔφη, σκήπτρω δε μετάφρενον ήδε καὶ ὅμω πλῆξεν ' ὁ δ' ἰδνώθη, θαλερὸν δε οἱ ἔκφυγε δάκρυ, σμῶδιξ δ' αἰματόεσσα μεταφρένου εξυπανέστη σκήπτρου ὑπὸ χρυσέου. ὁ δ' ἄρ' εζετο τάρβησέν τε, ἀλγήσας δ', ἀχρεῖον ἰδὼν ἀπομόρξατο δάκρυ. οἱ δὲ καὶ ἀχνύμενοί περ ἐπ' αὐτῷ ήδὺ γέλασσαν.

ώδε δέ τις είπεσκεν ίδων ές πλησίον ἄλλον ' " ὧ πόποι, ἡ δὴ μυρί ' ' Οδυσσεὺς ἐσθλὰ ἔοργεν, βουλάς τ' ἐξάρχων ἀγαθὰς πόλεμόν τε κορύσσων · νῦν δὲ τόδε μέγ' ἄριστον ἐν ' Αργείοισιν ἔρεξεν.''

Write out on your paper the fourth line, dividing it into feet and explaining any peculiarities of metre. Point out the metrical peculiarity in the last line. Why does not of, in the second line, suffer elision?

3. Translate (Il. III. 346–354): —
πρόσθε δ' 'Αλέξανδρος προίει δολιχίσκιον ἔγχος,
καὶ βάλεν 'Ατρείδαο κατ' ἀσπίδα πάντοσ' ἐίσην '
οὐδ' ἔρρηξεν χαλκός, ἀνεγνάμφθη δέ οἱ αἰχμὴ
ἀσπίδ' ἐνὶ κρατερῆ. ὁ δὲ δεύτερος ὅρνυτο χαλκῷ
'Ατρείδης Μενέλαος, ἐπευξάμενος Διὶ πατρί ·
" Ζεῦ ἄνα, δὸς τίσασθαι ὅ με πρότερος κάκ' ἔοργεν,
δῖον 'Αλέξανδρον, καὶ ἐμῆς ὑπὸ χερσὶ δάμασσον,
ὅφρα τις ἐρρίγησι καὶ ὀψιγόνων ἀνθρώπων
ξεινοδόκον κακὰ ῥέξαι, ὅ κεν φιλότητα παράσχη."

How was the order in which they should attack one another determined? What was the issue of the duel?

Where is ἐρρίγησι found, and from what present is it? Explain the construction in the first three words of the last line.

#### 1881.

1. Translate (Il. I. 292–303):—

τον δ' ἄρ' ὑποβλήδην ἢμείβετο δίος 'Αχιλλεύς ' ή γάρ κεν δειλός τε καὶ οὐτιδανὸς καλεοίμην, εἰ δὴ σοὶ πᾶν ἔργον ὑπείξομαι, ὅττι κεν εἴπῃς ' ἄλλοισιν δὴ ταῦτ' ἐπιτέλλεο, μὴ γὰρ ἔμοιγε σήμαιν' οὐ γὰρ ἔγωγ' ἔτι σοὶ πείσεσθαι ὀίω.

ἄλλο δέ τοι ἐρέω, σὺ δ' ἐνὶ φρεσὶ βάλλεο σῆσιν·
χερσὶ μὲν οὐτοι ἔγωγε μαχήσομαι εἴνεκα κούρης
οὕτε σοὶ οὕτε τῷ ἄλλῳ, ἐπεί μὶ ἀφέλεσθέ γε δόντες·
τῶν δ' ἄλλων ἄ μοί ἐστι θοῆ παρὰ νηὶ μελαίνη,
τῶν οὐκ ἄν τι φέροις ἀνελὼν ἀέκοντος ἐμεῖο.
εἰ δὶ ἄγε μὴν πείρησαι, ἵνα γνώωσι καὶ οίδε·
αἰψά τοι αἷμα κελαινὸν ἐρωήσει περὶ δουρί."

Make a list of the Homeric forms in this passage, giving in each case the corresponding Attic word, with accents.

Where is  $\pi\epsilon' \rho \eta \sigma a \iota$  found, and what in the form itself shows it? Give the present of  $\hat{\nu}\pi\epsilon' \xi \rho \iota a \iota$ ,  $\pi\epsilon' \iota \sigma \sigma \theta a \iota$ ,  $\hat{\iota} \phi \dot{\epsilon} \lambda \epsilon \sigma \theta \dot{\epsilon}$ .

# 2. Translate (Il. II. 188–197):—

συτινα μὲν βασιλῆα καὶ ἔξοχον ἄνδρα κιχείη, τὸν δ' ἀγανοῖς ἐπέεσσιν ἐρητύσασκε παραστάς ' ὅαιμόνι', οὐ σε ἔοικε κακὸν ὡς δειδίσσεσθαι, ἀλλ' αὐτός τε κάθησο καὶ ἄλλους ΐδρυε λαούς. οὐ γάρ πω σάφα οἶσθ' οἶος νόος 'Ατρείωνος ' νῦν μὲν πειρᾶται, τάχα δ' ἴψεται υἶας 'Αχαιῶν. ἐν βουλῆ δ' οὐ πάντες ἀκούσαμεν οῖον ἔειπεν. μή τι χολωσάμενος ῥέξη κακὸν υἶας 'Αχαιῶν. θυμὸς δὲ μέγας ἐστὶ διοτρεφέος βασιλῆος · τιμὴ δ' ἐκ Διός ἐστι, φιλεῖ δὲ ἑ μητίετα Ζεύς."

Write out a metrical scheme of the sixth line, accounting for the quantity of each syllable. Point out the metrical peculiarity in the ninth line.

Give the Attic form for ¿πέωσσιν. Explain the accent on ώs.

# 3. Translate (Il. III. 146-153): —

οί δ' ἀμφὶ Πρίαμον καὶ Πάνθοον ἦδὲ θυμοίτην Λάμπον τε Κλυτίον θ' Ίκετάονά τ', ὅζον Ἅρηος, Οὐκαλέγων τε καὶ ἀΑντήνωρ, πεπνυμένω ἄμφω, εΐατο δημογέροντες ἐπὶ Σκαιῆσι πύλησιν, γήραϊ δὴ πολέμοιο πεπαυμένοι, ἀλλ' ἀγορηταὶ ἐσθλοί, τεττίγεσσιν ἐοικότες, οἵτε καθ' ὕλην δενδρέφ ἐφεζόμενοι ὅπα λειριόεσσαν ἰεῖσιν · τοῖοι ἄρα Τρώων ἡγήτορες ἦντ' ἐπὶ πύργφ.

Point out the irregularity of syntax in the third line. Give the Attie form for  $\tau \epsilon \tau \tau \tau' \gamma \epsilon \sigma \sigma w$ . What is the first foot of the seventh line? What two forms of the same word in this passage?

#### 1882.

1. Translate (Il. I. 362-5, 393-9):—

" τέκνου, τί κλαίεις; τί δέ σε φρένας ἵκετο πένθος; ἐξαύδα, μὴ κεῦθε νόφ, ἵνα εἴδομεν ἄμφω." τὴν δὲ βαρυστενάχων προσέφη πόδας ἀκὺς ᾿Αχιλλεύς:

" οἶσθα· τίη τοι ταῦτα ἰδυίῃ πάντ' ἀγορεύω ;

άλλὰ σύ, εἰ δύνασαί γε, περίσχεο παιδὸς έῆος · 
ἐλθοῦσ' Οὔλυμπόνδε Δία λίσαι, εἴποτε δή τι 
ἢ ἔπει ἄνησας κραδίην Διὸς ἠὲ καὶ ἔργῳ. 
πολλάκι γάρ σεο πατρὸς ἐνὶ μεγάροισιν ἄκουσα 
εὐχομένης, ὅτ' ἔφησθα κελαινεφέι Κρονίωνι 
οἵη ἐν ἀθανάτοισιν ἀεικέα λοιγὸν ἀμῦναι, 
ὁππότε μιν ξυνδῆσαι 'Ολύμπιοι ἤθελον ἄλλοι.''

Give a metrical scheme of lines 7 and 8, with the rules for quantity in any notable cases. Point out what words in 8 would have a different form but for the metre.

(live the construction of φρέτας (line 1), ταθτα (line 4), σεο (line 8), Κρονίωνι (line 9).

Where found and from what present are είδητεν (line 2), λίσαι (line 6)? Who is meant by πατρός (line 8)?

## 2. Translate (Il. II. 321-332):—

"ώς οὖν δεινὰ πέλωρα θεῶν εἰσῆλθ' ἐκατόμβας,
Κάλχας δ' αὐτίκ' ἔπειτα θεοπροπέων ἀγόρευεν '
τίπτ' ἄνεω ἐγένεσθε, καρηκομόωντες 'Λχαιοί ;
ἡμῖν μὲν τόδ' ἔφηνε τέρας μέγα μητίετα 'Λεύς,
ὄψιμον, ὀψιτέλεστον, ὅου κλέος οὔποτ' ὀλεῖται.
ώς οὖτος κατὰ τέκν' ἔφαγε στρουθοῖο καὶ αὐτήν,
ὀκτώ, ἀτὰρ μήτηρ ἐνάτη ἦν, ἡ τέκε τέκνα,
ὡς ἡμεῖς τοσσαῦτ' ἔτεα πτολεμίξομεν αὖθι,
τῷ δεκάτῷ δὲ πόλιν αἰρήσομεν εὐρυάγυιαν'.
κεῖνος τὼς ἀγόρευε · τὰ δὴ νῦν πάντα τελεῖται.
ἀλλ' ἄγε, μίμνετε πάντες, ἐυκνήμιδες 'Λχαιοί,
αὐτοῦ, εἰσόκεν ἄστυ μέγα Πριάμοιο ἕλωμεν."

When did this prodigy occur, and where? What is the reference in  $\hat{ov}_{\tau 05}$  (line 6)? Construction of  $\theta \epsilon \hat{ov}_{\ell}$  (line 1).

Point out the Homeric forms, giving the corresponding Attic forms, in the last five lines.

## 3. Translate (Il. III. 86-94):—

"κέκλυτέ μευ, Τρῶες καὶ ἐυκνήμιδες 'Αχαιοί, μῦθον 'Αλεξάνδροιο, τοῦ εἴνεκα νεῖκος ὄρωρεν. ἄλλους μὲν κέλεται Τρῶας καὶ πάντας 'Αχαιοὺς τεύχεα κάλ' ἀποθέσθαι ἐπὶ χθονὶ πουλυβοτείρη, αὐτὸν δ' ἐν μέσσω καὶ ἀρηίφιλον Μενέλαον οἴους ἀμφ' Ἑλένη καὶ κτήμασι πᾶσι μάχεσθαι. ὁππότερος δέ κε νικήση κρείσσων τε γένηται, κτήμαθ' ἐλὼν εὖ πάντα γυναῖκά τε οἴκαδ' ἀγέσθω· οί δ' ἄλλοι φιλότητα καὶ ὅρκια πιστὰ τάμωμεν.'

Where found and from what verb are  $\kappa \hat{\kappa} \kappa \lambda \nu \tau \epsilon$  (line 1),  $\tilde{\delta} \rho \omega \rho \epsilon \nu$  (line 2)? On what does  $\mu \hat{\alpha} \chi \epsilon \sigma \theta \omega$  (line 6) depend? What is the origin of the metaphor in  $\tau \hat{\alpha} \mu \omega \rho \epsilon \nu$  (line 9)?

[The following may be substituted for either of the preceding passages.]

4. Translate (Il. VI. 286-296): -

ῶς ἔφαθ', ἡ δὲ μολοῦσα ποτὶ μέγαρ' ἀμφιπόλοισιν κέκλετο · ταὶ δ' ἄρ' ἀόλλισσαν κατὰ ἄστυ γεραιάς. αὐτὴ δ' ἐς θάλαμον κατεβήσετο κηώεντα, ἕνθ' ἔσαν οἱ πέπλοι παμποίκιλοι, ἔργα γυναικῶν Σιδονίων, τὰς αὐτὸς ᾿Λλέξανδρος θεοειδὴς ἤγαγε Σιδονίηθεν, ἐπιπλῶς εὐρέα πόντον, τὴν ὁδὸν ἡν Ἑλένην περ ἀνήγαγεν εὐπατέρειαν. τῶν ἕν' ἀειραμένη Ἑκάβη φέρε δῶρον ᾿Λθήνη, ὸς κάλλιστος ἔην ποικίλμασιν ἡδὲ μέγιστος ἀστὴρ δ' ὡς ἀπέλαμπεν · ἔκειτο δὲ νείατος ἄλλων. βῆ δ' ἰέναι, πολλαὶ δὲ μετεσσεύοντο γεραιαί.

Explain the peculiarity of form in κατεβήστετο (line 3). Construction of την δδόν (line 7), ἄλλων (line 10).

Point out the Homeric forms, giving the corresponding Attie forms, in the first five lines.

How does the mention of Sidon seem to bear on the date of the poem?

#### 1883.

1. Translate (*Il.* I. 320–330):—

άλλ' ὅ γε Ταλθύβιόν τε καὶ Εὐρυβάτην προσέειπεν, τώ οἱ ἔσαν κήρυκε καὶ ὀτρηρὼ θεράποντε · "ἔρχεσθον κλισίην Πηληιάδεω 'Αχιλῆος · χειρὸς ἔλοντ' ἀγέμεν Βρισηίδα καλλιπάρηον. 5 εἰ δέ κε μὴ δώησιν, ἐγὼ δέ κεν αὐτὸς ἔλωμαι ἐλθὼν σὺν πλεόνεσσι · τό οἱ καὶ ῥίγιον ἔσται." ὡς εἰπὼν προΐει, κρατερὸν δ' ἐπὶ μῦθον ἔτελλεν. τὼ δ' ἀέκοντε βάτην παρὰ θῦν' άλὸς ἀτρυγέτοιο,

Μυρμιδόνων δ' επί τε κλισίας καὶ νῆας ἰκέσθην.

10 τον δ' εὖρον παρά τε κλισίη καὶ νηὶ μελαίνη

ήμενον · οὐδ' ἄρα τώ γε ἰδὼν γήθησεν 'Αχιλλεύς.

Make a list of the forms peculiar to the Homeric dialect in this passage, adding in each case the Attic prose form. What different uses of  $\tau \dot{\omega}$  are seen in lines 2 and 8? Construction of  $\chi \alpha \rho \dot{\omega} s$  (4). Use of the mode in  $\dot{\alpha} \gamma \dot{\epsilon} \mu \alpha c$  (4) and  $\ddot{\epsilon} \lambda \omega \mu \alpha c$  (5). Explain the use of  $\delta \dot{\epsilon}$  after  $\dot{\epsilon} \gamma \dot{\omega}$  in 5.

- 2. Translate (Il. II. 455-8, 469-73):
  - ηύτε πῦρ ἀιδηλον ἐπιφλέγει ἄσπετον ὕλην οὕρεος ἐν κορυφῆς, ἕκαθεν δέ τε φαίνεται αὐγή, ὡς τῶν ἐρχομένων ἀπὸ χαλκοῦ θεσπεσίοιο αἴγλη παμφανόωσα δι' αἰθέρος οὐρανὸν ໂκεν.
- 5 ήύτε μυιάων ἀδινάων ἔθνεα πολλά, αἴ τε κατὰ σταθμὸν ποιμνήιον ἠλάσκουσιν ὅρη ἐν εἰαρινῆ, ὅτε τε γλάγος ἄγγεα δεύει, τύσσοι ἐπὶ Τρώεσσι καρηκομόωντες ᾿λχαιοί ἐν πεδίω ἵσταντο, διαρραῖσαι μεμαῶτες.

Mark on your writing-paper the metrical feet of 7 and 8, giving the rule in every case of variation from natural quantity. Construction of  $\tau \hat{o} r$  (3),  $o \hat{v} \rho a r \hat{o} r$  (4). What Latin words show the same stem with  $\tilde{v} \lambda \eta r$  (1),  $o \hat{a} \rho a r \hat{v}$  (7)? What words contain the point of comparison in 5–9?

- 3. Translate (Il. III. 428–36):—
- " ἥλυθες ἐκ πολέμου · ὡς ὤφελες αὐτόθ' ὀλέσθαι, ἀνδρὶ δαμεὶς κρατερῷ δς ἐμὸς πρότερος πόσις ἣεν. ἢ μὲν δὴ πρίν γ' εὕχε' ἀρηιφίλου Μενελάου σῷ τε βίῃ καὶ χερσὶ καὶ ἔγχεϊ φέρτερος εἶναι · 5 ἀλλ' ἴθι νῦν προκάλεσσαι ἀρηίφιλον Μενέλαον

έξαθτις μαχέσασθαι έναντίον. ἀλλά σ' ἔγωγε παύεσθαι κέλομαι, μηδὲ ξανθῷ Μενελάφ ἀντίβιον πόλεμον πολεμίζειν ηδὲ μάχεσθαι ἀφραδέως, μή πως τάχ' ὑπ' αὐτοῦ δουρὶ δαμήης."

Give the full forms without elision of  $a\dot{v}\tau \delta\theta'$  (1),  $\epsilon \ddot{v}\chi \dot{\epsilon}'$  (3),  $\tau \dot{a}\chi'$  (9). Where are  $\pi \rho o\kappa \dot{a}\lambda \epsilon \sigma \sigma a\iota$  (5) and  $\delta a\mu \dot{\eta} gs$  (9) found? What two constructions are possible for  $\delta ov\rho \iota'$  (9)? Give the general rule for the accent of verbs, and point out the exceptions in this passage.

### GREEK AT SIGHT.

#### 1881.

[Hermogenes explains who his triends are of whom he is proud  $(\mu \acute{\epsilon} \gamma \alpha \phi \rho \nu \epsilon \widetilde{\iota})$ .]

έκ τούτου εἶπέ τις "σον ἔργον, ω Ερμόγενες, λέγειν τε τους φίλους οίτινές είσι καὶ ἐπιδεικνύναι ώς μέγα τε δύνανται καὶ σοῦ ἐπιμέλονται, ἵνα δοκῆς δικαίως ἐπ' αὐτοῖς μέγα φρονεῖν." "Οὐκοῦν ώς μὲν καὶ "Ελληνες καὶ βάρβαροι τοὺς θεοὺς ἡγοῦνται πάντα εἰδέναι τά τε ὅντα καὶ τὰ μέλλοντα εὔδηλον. πᾶσαι γοῦν αἱ πόλεις καὶ πάντα τὰ έθνη διὰ μαντικής ἐπερωτῶσι τοὺς θεοὺς τί τε χρη καὶ τί οὐ χρη ποιείν. καὶ μην ὅτι νομίζομέν γε δύνασθαι αὐτοὺς καὶ εὖ καὶ κακῶς ποιεῖν καὶ τοῦτο σαφές.1 πάντες γουν αιτούνται τούς θεούς τὰ μέν φαύλα ἀποτρέπειν τάγαθα δε διδύναι. ούτοι τοίνυν οί πάντα μεν είδύτες πάντα δε δυνάμενοι θεοί ούτω μοι φίλοι είσιν ώστε δια το επιμελείσθαί μου ούποτε λήθω αὐτούς ούτε νυκτός ούθ ήμέρας οὔθ' ὅποι ἀν ὁρμῶμαι οὔθ' ὅτι ἀν μέλλω πράττειν. διά δὲ τὸ προειδέναι καὶ ὅ τι ἐξ ἐκάστου ἀποβήσεται σημαίνουσι μοι πέμποντες άγγέλους φήμας καὶ ἐνύπνια3 καὶ οἰωνοὺς ἄ τε δεῖ καὶ ὰ οὐ χρη ποιεῖν, οῖς ἐγὼ ὅταν μὲν πείθωμαι, οὐδέποτέ μοι μεταμέλει ήδη δέ ποτε καὶ άπιστήσας ἐκολάσθην." 4

<sup>1</sup> Sc. ἐστί.  $^2 = \lambda \alpha \nu \theta \acute{a} \nu \omega$ .  $^3$  dreams.  $^4$  I have been punished.

#### 1882.

ἐπεὶ δὲ μέγα φρονήσας ὁ Τισσαφέρνης ἐπὶ τῷ καταβάντι στρατεύματι παρὰ βασιλέως προείπεν ᾿Αγησιλάφ πόλεμον, εἰ μὴ ἀπίοι ἐκ τῆς ᾿Ασίας, οἱ μὲν ἄλλοι σύμμα-

χοι καὶ Λακεδαιμονίων οι παρύντες μάλα άχθεσθέντες φανεροί εγένοντο, 'Αγησίλαος δε μάλα φαιδρώ τώ προσώπω απαγγείλαι Τισσαφέρνει τούς πρέσβεις εκέλευσεν ώς πολλήν χάριν αὐτῷ ἔχοι, ὅτι ἐπιορκήσας αὐτὸς μὲν πολεμίους τους θεους εκτήσατο τοις δ' Έλλησι συμμάχους έποίησεν. ἐκ δὲ τούτου εὐθὺς τοῖς μὲν στρατιώταις παρήγγειλε συσκευάζεσθαι ώς είς στρατείαν, ταίς δέ πόλεσιν είς ας ανάγκη ην αφικνείσθαι στρατευομένω έπὶ Καρίαν προείπεν αγοράν παρασκευάζειν. ἐπέστειλε δὲ καὶ Ίωσι καὶ Λίολεῦσι καὶ Ελλησποντίοις πέμπειν πρὸς έαυτον είς Έφεσον τούς συστρατευσομένους. ό δὲ Τισσαφέρνης, καὶ ὅτι ἱππικὸν οὐκ εἶχεν ὁ ᾿Αγησίλαος ἡ δὲ Καρία ἄφιππος 1 ην, καὶ ὅτι ἡγεῖτο αὐτον ὀργιζεσθαι αὐτῶ διὰ τὴν ἀπάτην, τῶ ὄντι νομίσας ἐπὶ τὸν αὐτοῦ οἶκου εἰς Καρίαν αὐτὸν ὁρμήσειν, τὸ μὲν πεζόν ἄπαν διεβίβασεν έκεῖσε, τὸ δ' ἱππικὸν εἰς τὸ Μαιάνδρου περιήγαγε πεδίου, νομίζων ίκανὸς είναι καταπατήσαι 3 τη ίππω 4 τους "Ελληνας, πρίν είς τὰ δύσιππα ι ἀφικέσθαι.

<sup>1</sup> unfit for cavalry operations. <sup>2</sup> deceit. <sup>3</sup> to overwhelm. <sup>4</sup> cavalry.

#### 1883.

### Translate: -

Μετὰ δὲ ταῦτα ἀναστὰς εἶπε Ξενοφῶν · °Ω ἄνδρες στρατιῶται, τὴν μὲν πορείαν, ὡς ἔοικε, δῆλον ὅτι πεζῆ ποιητέον · οὐ γὰρ ἔστι πλοῖα · ἀνάγκη δὲ πορεύεσθαι ἤδη · οὐ γὰρ ἔστι μένουσι τὰ ἐπιτήδεια. ἡμεῖς οὖν, ἔφη, θυσόμεθα · ὑμᾶς δὲ δεῖ παρασκευάζεσθαι ὡς μαχουμένους εἴ ποτε καὶ ἄλλοτε · οἱ γὰρ πολέμιοι ἀνατεθαρρήκασιν. ἐκ τούτου ἐθύοντο οἱ στρατηγοί · θυομένοις δὲ ἐπὶ τῆ ἀφόδῳ ¹ οὐκ

<sup>&</sup>lt;sup>1</sup> departure.

ἐγίγνετο τὰ ἱερά. ταύτην μὲν οὖν τὴν ἡμέραν ἐπαύσαντο. καί τινες ἐτόλμων λέγειν ὡς ὁ Ξενοφῶν βουλόμενος τὸ χωρίον οἰκίσαι <sup>1</sup> πέπεικε <sup>2</sup> τὸν μάντιν λέγειν ὡς τὰ ἱερὰ οὐ γίγνεται ἐπὶ ἀφόδῳ. ἐντεῦθεν κηρύξας τῆ αὔριον παρεῖναι ἐπὶ τὴν θυσίαν τὸν βουλόμενον, ἔθυε · καὶ ἐνταῦθα παρῆσαν πολλοί. θυομένῳ δὲ πάλιν εἰς τρὶς ἐπὶ τῆ ἀφόδῷ οὐκ ἐγίγνετο τὰ ἱερά. ἐκ τούτου χαλεπῶς εἶχον οἱ στρατιῶται · καὶ γὰρ τὰ ἐπιτήδεια ἀπέλιπεν ἃ ἔχοντες ῆλθον, καὶ ἀγορὰ οὐδεμία παρῆν.

## GREEK HISTORY.

#### 1876.

- 1. Give the dates, the opposed parties, and the immediate consequences, of the battles of Platea, Ægospotami, Charoneia.
  - 2. Give the date and character of the peace of Antalkidas.
- 3. What is known of the life of Alkibiades; of Philip of Macedon; of Xenophon?

#### 1877.

- 1. Narrate the revolt of the Ionic cities of Asia Minor against the Persian government.
- 2. Who were the leading men at Athens in literature, art, and government, between 500 and 450 B.c.?
- 3. When, and for how long, was the tyranny of the Thirty at Athens? By whom, mainly, was it overthrown?

#### 1878.

- 1. What is known of Miltiades; of Kleon; of Aratus?
- 2. Who were the chief men in Greek politics, philosophy, and art, between 400 and 300 B.c.?
- 3. What are the prominent points in the history of Syracuse?

#### 1879.

- 1. Give a brief account of Demaratos (the friend of Xerxes); of Brasidas; of Pelopidas.
- 2. What events occasioned the outbreak of the Peloponuesian war? Into what periods is it usually divided? What battle ended it?
- 3. Narrate the history of Amphipolis and of Olynthos so far as they came into connection with Athens.

#### 1880.

- 1. Give a brief account of Peisistratos; of Alkibiades; of Æschines.
- 2. Mention any events you recall between the Persian and Peloponnesian wars.
  - 3. Give the date and character of the peace of Antalkidas.
- 4. Describe Philip's aggressions, and give some reasons for the weakness of the resistance offered by Athens.

#### 1881.

- 1. Give a brief account of Aristeides and of Brasidas.
- 2. What is meant by the period of tyrants in Greek history? Describe the rise and overthrow of some one of them.
- 3. Describe the formation of the first Athenian confederacy and the process of its change into an empire.
- 4. Mention the principal battles (with dates) of Alexander's invasion of Asia. What motive did he claim to have for his attack on the Persian king? What were the results of his career?

#### 1882.

- 1. Give a brief account of the life of Miltiades; of Demosthenes.
- 2. What Greek states held the so-called hegemony, and at what different periods? What were the causes of the transfer of it which came at the close of the Persian wars?
- 3. When was the peace of Antalkidas made, and what were its terms?
- 1. Describe ostracism. Against what individuals is it known to have been put into effect?

#### 1883.

- 1. Give some account of Kleisthenes; of Xenophon.
- 2. Tell what you know about Greek colonies: e.g., what was their relation to the mother city? to what countries were the earlier ones sent? why were most of them on insular or seaboard sites? how were they generally distributed according to tribe-connection? what great advantages resulted to Greece from them? how did they affect the people about them? name some of the most important.
- 3. Tell the story of the Athenian expedition against Syrakuse.





# REQUIREMENTS FOR ADMISSION.

# (SHEFFIELD SCIENTIFIC SCHOOL.)

- Arithmetic: Fundamental Operations; Least Common Multiple; Greatest Common Divisor; Common and Decimal Fractions; Denominate Numbers, including the Metric System of Weights and Measures; Percentages, including Interest, Discount, and Commission; Proportion; Extraction of the Square and Cube Roots.
- Algebra: Fundamental Operations; Fractions; Equations of the First Degree, with one or several unknown quantities; Inequalities; Ratio and Proportion; Involution, including the Binomial Formula for an entire and positive Exponent; Evolution; the Reduction of Radicals; Equations of the Second Degree; Progressions; Permutations and Combinations; the Method of Indeterminate Coefficients; Fundamental Properties of Logarithms; Compound Interest.
- Geometry: Plane, Solid, and Spherical, including Fundamental Notions of Symmetry, and Examples of Loei and Maxima and Minima of Plane Figures.
- Trigonometry: Including the Analytical Theory of the Trigonometrical Functions and the usual Formulæ; the Construction and Use of Trigonometrical Tables, and the Solution of Plane Triangles,—so much, for example, as is contained in Newcomb's Trigonometry to Art. 79, or in Wheeler's or Richards's Plane Trigonometry.
- Latin: Simple exercises in translating English into Latin. (Smith's *Principia Latina*, Part I., and the First and Second Latin Books of the Ahm-Henn Latin series, are named as indicating the nature and extent of this requirement.) Cæsar, Six Books of the Gallic War.

History of the United States.

Geography.

English: Including Grammar, Spelling, and Composition. In Grammar, Whitney's "Essentials of English Grammar," or an equivalent.

# ENTRANCE

# EXAMINATION PAPERS.

(SHEFFIELD SCIENTIFIC SCHOOL.)

## ARITHMETIC.

July, 1880.

- 1. (a) Select the prime numbers between 1 and 50.
  - (b) Find the prime factors of 6902.
- 2. Find the value of  $\frac{4\frac{1}{4}-2\frac{1}{4}}{6\frac{1}{2}-2\frac{1}{7}}$ , in its simplest form.
- 3. Divide 0.10724 by 0.003125.
- 4. How many stones 10 in. long, 9 in. broad, and 4 in. thick, would it require to build a wall 80 ft. long, 20 ft. high, and  $2\frac{1}{4}$  ft. thick, without mortar?
- 5. The population of a certain town has gained 25 per cent within the last five years. It is now 6575; what was it five years ago?
- 6. Extract the square root of 3369 to three places of decimals.
- 7. Give the approximate value of the meter in inches; of the gram in grains; of the kilogram in pounds avoirdupois; of the liter in liquid quarts.
- 8. What is the weight of a liter of pure water at its maximum density?

#### September, 1880.

- 1. Reduce  $_{9\,1\,0}^{\,3}$  and  $_{2\,4\,7\,0}^{\,7}$  to their least common denominator; add the results, and express the sum decimally to four places.
- 2. If 8 horses consume  $3\frac{1}{2}$  t. of hay in 30 dys., how long will  $4\frac{9}{10}$  t. last 10 horses?
- 3. A buys 9 per cent stocks at 25 per cent premium, and B buys 6 per cent stocks at 25 per cent discount; supposing dividends to be paid promptly, what rates of interest will they receive on their investments?
- 4. Calculate the square root of 2.064 to two places of decimals.
  - 5. Calculate the cube root of 3.3 to two places of decimals.
- 6. How many hectoliters of grain will a bin hold whose interior length, width, and depth, are each 6 ft. 6 in.?

## June, 1881.

- 1. Ascertain whether the fraction  $\frac{2458}{51937}$  is in its lowest terms or not, and explain the process you employ.
  - 2. (a) Divide  $\frac{7}{257}$  by  $\frac{3}{241}$ , and explain the process.
- (b) Can the quotient be exactly expressed by a terminating decimal? Give a reason for your answer.
- 3. Divide 0.00309824 by 0.0376, and explain the position of the decimal point in the quotient.
- 4. If a body revolves uniformly in the circumference of a circle at the rate of 12° 15′ 25″ per minute, how long is it in performing a complete revolution?
- 5. If 6 men, working uniformly at a certain rate, do a certain piece of work in 17 dys, of 9 hrs. each, how many

days of  $8\frac{1}{2}$  hrs. each will 21 men, working uniformly at the same rate, require to do 20 such pieces?

- 6. \$5674.83 is 105 per cent of what sum?
- 7. Extract the square root of 2.26 to three places of decimals. Show how you can derive from the square root of this number that of 0.0226.
- 8. Find the weight in grams of a rectangular bar of gold  $1^{\text{dem}}$  long,  $2_2^{\text{rem}}$  wide, and  $2^{\text{cm}}$  thick, assuming the bar to be 19 times as heavy as its own volume of pure water at its maximum density.

## September, 1881.

- 1. Find the least common multiple of 1011, 1685, and 2359.
- 2. A man bought 16 horses and 19 cows for \$1855. He paid upon the average  $\frac{7}{15}$  as much for a cow as he did for a horse. What was the average price he paid per head for the horses?
- 3. Divide 0.006102 by 2.034, and explain the position of the decimal point.
  - 4. Reduce 18,216 ft. to miles and decimals of a mile.
- 5. A company, whose capital is \$275,000, has \$15,125 from its earnings to divide. What per cent dividend can it declare upon the basis of this sum?
- 6. If a block of granite 8 ft. long, 2 ft. wide, and 1 ft. 6 in. thick, weigh 920 lbs., how much will a block of the same kind of granite weigh which is 12 ft. long, 3 ft. wide, and 2 ft. thick?
- Extract the cube root of 1.025 to three places of decimals.

- 8. (a) In 2.15<sup>chm</sup> how many cubic millimeters? Reduce approximately
  - (b)  $600^{\text{km}}$  to miles, and
  - (c) 50g to grains.

## June, 1882.

- 1. Find the greatest common divisor of 17,640 and 18,375.
- 2. Find the least common multiple of the foregoing numbers.
- 3. Give the table of troy weights; also the table of metric weights. Express the gram in grains, and the kilogram in pounds avoirdupois.
  - 4. Express  $\frac{32\frac{1}{6}}{75\frac{3}{5}}$  decimally to three places.
- 5. Of an alloy containing 21 parts copper and 4 parts nickel, what per cent is copper and what per cent nickel?
- 6. For what amount must a note, payable in 60 days, be given to a bank discounting at 6 per cent to obtain \$500?
- 7. If 16 men build 18 rds. of wall in 12 dys., how many men will be needed to build 72 rds. in 8 dys.?
  - 8. Extract the square root of .001601 to four places.

## September, 1882.

- 1. (a) Which of the numbers 293, 371, 385, 440, 524, 617, and 713 are prime?
  - (b) Separate 1836 into its prime factors.
  - 2. Divide  $\frac{\frac{7}{8}}{\frac{3}{11}}$  of  $12\frac{1}{2}$  by  $\frac{\frac{1}{3}}{7\frac{1}{2}}$  of  $8\frac{3}{4}$ .
- 3. Divide .000741 by .62, and explain the position of the Accimal point in the quotient.

- 4. In 80,937,864 sq. in. how many acres?
- 5. Q and Y barter. Q makes of 10 cts.  $12\frac{1}{2}$  cts., Y makes of 15 cts. 19 cts.; which makes the most per cent, and how much?
- 6. Three men harvested and thrashed a field of grain on shares, A furnishing 4 hands 5 dys., B 6 hands 4 dys., and C 5 hands 8 dys. The whole crop was 630 bu., of which they had one-fifth; how much did each receive?
  - 7. Extract the cube root of 81 <sup>5</sup> to three decimal places.
- 8. Bought 30<sup>m</sup> of cloth at \$2.50 per metre; at what price per yard must it be sold to gain \$25?

## June, 1883.

- 1. Find the greatest common divisor of 36,864 and 20,736.
- 2. Multiply  $\frac{3}{4}$  of  $\frac{8\frac{4}{5}}{6\frac{2}{5}}$  by  $\frac{4}{9}$  of  $\frac{2}{16}$ .
- 3. (a) Give the table of metric weights.
- (b) A cubical cistern holds  $1331^{\text{kg}}$  of water; what is the length of an inner edge?
- 4. Divide 67.56785 by 0.035, and multiply the result by  $\frac{7}{8}$ . Explain the position of the decimal point after division.
- 5. How much money should be received on a note of \$1000, payable in 4 months, discounting at a bank where the interest is 6 per cent?
- 6. If a man travel 117 miles in 15 days, employing only 9 hours a day, how far would be go in 20 days, travelling 12 hours a day?
  - 7. Extract the square root of 10 to five places.

## September, 1883.

- 1. (a) Select the prime numbers between 50 and 100.
- (b) What is the least number that can be exactly divided by by  $\frac{1}{15}$ ,  $2\frac{1}{2}$ , 5,  $6\frac{1}{3}$ , and  $\frac{1}{11}$ ?
- 2. Reduce 0.00096 to its simplest equivalent common fraction.
  - 3. 7465 is  $33\frac{1}{3}$  per cent of what number?
- 4. A broker bought 84 shares of railroad stock at 19 per cent discount. He sold 35 shares at  $27\frac{1}{2}$  per cent discount, and the balance at 8 per cent discount. Did he gain or lose, and how much?
  - 5. Calculate the cube root of 3.7 to five decimal places.
- 6. Give the approximate value of the meter in feet; of the kilogram in pounds avoirdupois.
  - 7. Find the weight in kilos of 15 gallons of water.

#### GEOMETRY.

#### July, 1880.

Note 1. Candidates who present themselves for the whole examination may omit questions 2, 3, and 5. Candidates who present themselves for the partial examination will confine themselves to the questions in Plane Geometry.

NOTE 2. State what text-book you have studied, and to what extent.

#### I. - PLANE GEOMETRY.

- 1. (a) Define the symmetry of a figure with respect to an axis and with respect to a point.
- (b) Prove that if a figure is symmetrical with respect to two axes perpendicular to each other, it is also symmetrical with respect to the intersection of these axes.
- 2. An angle formed by a tangent and a chord is measured by one-half the intercepted arc.
  - 3. To bisect a given arc or angle.
- 4. (a) If a perpendicular be drawn from the vertex of the right angle to the hypothenuse of a right triangle, the two triangles thus formed are similar to each other and to the whole triangle.
- (b) What can you say of the perpendicular as compared with the segments of the hypothenuse? Why?
  - (c) What of either side about the right angle? Why?
- 5. On a given straight line to construct a polygon similar to a given polygon?
- 6. The circumferences of two circles are to each other as their radii, and their areas are to each other as the squares of their radii.

#### II. - SOLID AND SPHERICAL GEOMETRY.

- 7. If a straight line and a plane are parallel, the intersection of the plane with planes passed through the line are parallel to that line and to each other.
- 8. Define a prism. Two prisms are equal, if three faces including a triedral angle of the one are respectively equal to three faces similarly placed including a triedral angle of the other.
  - 9. Every section of a sphere made by a plane is a circle.
- 10. Between what two limits does the sum of the angles of a spherical triangle lie? Write expressions for the surface and volume of the cylinder, cone, and sphere.

#### September, 1880.

[State what text-book you have studied and to what extent.]

- 1. To draw a common tangent to two given circles.
- 2. The bisector of an angle of a triangle divides the opposite side into segments which are proportional to the adjacent sides.
- 3. The area of a parallelogram is equal to the product of its base and altitude.
- 4. How do you find the area of a trapezoid? The areas of similar polygons are to each other in what ratio? Of all plane figures having the same area what one has the least perimeter?
- 5. If a straight line is perpendicular to each of two straight lines at their point of intersection, it is perpendicular to the plane of those lines.
- 6. A triangular pyramid is one-third of a triangular prism of the same base and altitude.

7. Define the terms, spherical excess and tri-rectangular triangle. The area of a spherical triangle is equal to its spherical excess (the right angle being the unit of angles, and the tri-rectangular triangle the unit of areas).

#### June, 1881.

Note 1. Candidates for examination on the whole of this subject should take the whole of this paper. Candidates for the first year's partial examination should take the first part; those for the second year's partial examination, the second part.

Note 2. State what text-book you have studied on the subject, and to what extent.

#### I. - PLANE GEOMETRY.

- 1. Of two oblique lines drawn from the same point to the same straight line, that is the greater which cuts off upon the line the greater distance from the foot of the perpendicular. Corollaries.
- 2. In any triangle the product of two sides is equal to the product of the diameter of the circumscribed circle by the perpendicular let fall upon the third side from the vertex of the opposite angle.
- 3. Two sides of a triangle and the angle opposite to one of them being given, to construct the triangle.
- 4. The area of a circle is equal to half the product of its circumference by its radius.
  - 5. Calculate the area of a circle whose radius is 10 ft.

#### II. - SOLID AND SPHERICAL GEOMETRY.

- 6. The sum of any two face angles of a triedral angle is greater than the third.
- 7. If the base of a cone is a circle, every section of the cone made by a plane parallel to the base is a circle.

- 8. Calculate the area in square feet of a spherical triangle on a sphere whose radius is 10 ft., the angles of the triangle being 70°, 80°, and 120°.
- 9. Calculate the area of a zone on the sphere whose radius is 30 ft., the altitude of the zone being 3 ft.
- 10. Write expressions for the surface and volume of a cone of revolution.

#### September, 1881.

[State what text-book you have studied on the subject, and to what extent.]

- 1. Through any three points not in the same straight line a circumference can be made to pass, and but one.
- 2. If three or more straight lines drawn through the same point intersect two parallels, the corresponding segments of the parallels are proportional.
- 3. To find the locus of all the points whose distances from two given points are in a given ratio.
- 4. Define the term *limit*. Prove that the circumference of a circle is the limit to which the perimeters of the inscribed and circumscribed regular polygons approach when the number of their sides is increased indefinitely.
- 5. (a) When is a straight line said to be perpendicular to a plane? (b) How do you measure the diedral angles included between two intersecting planes?
- (c) Prove that if a straight line is perpendicular to a plane, every plane passing through the line is also perpendicular to that plane.
- 6. The volume of any parallelopiped is equal to the product of its base by its altitude.

- 7. If two triangles on the same sphere are mutually equiangular, they are also mutually equilateral; and are either equal or symmetrical.
- 8. The lateral area of a frustum of a cone of revolution is equal to the half sum of the circumferences of its bases multiplied by its slant height.

#### June. 1882.

Note 1. Candidates for examination in this subject as a whole, should take the whole of this paper; those for the first year's partial examination, the first part of it; those for the second year's partial examination, the second part.

Note 2. State at the head of your paper what text-book you have studied on the subject, and to what extent.

- 1. (a) Define and illustrate the symmetry of a figure with reference to an axis and with reference to a point.
- (h) Define the different classes and species of quadrilaterals.
- 2. The three medial lines of a triangle meet in a point which is at two-thirds the distance from the vertex of each angle to the middle of the opposite side.
- 3. To inscribe a circle in a given triangle. Define *escribed* circles relative to a triangle.
- 4. The bisector of an interior angle of a triangle divides the opposite side into segments proportional to the adjacent sides.
- 5. When is a variable magnitude said to have a *limit?* Give an example to illustrate the definition.
- 6. If two sides of a triangle be given, its area will be a maximum when these sides are at right angles.
- 7. If a straight line is perpendicular to each of two traight lines at their point of intersection, it is perpendicular to the plane of these lines.

- 8. Define symmetrical polyhedral angles. Illustrate the definition by a figure.
- 9. Define the poles of a circle of a sphere. Prove that all points on the circumference of a circle of a sphere are equally distant from each of its poles.
- 10. The angle between two great circles is equal to the diedral angle between their planes.

## September, 1882.

[State what text-book you have studied, and to what extent.]

- 1. An inscribed angle is measured by one-half its intercepted arc.
- 2. From a given point without a circle to draw a tangent to the circle.
- 3. To construct a triangle which shall be equal in area to a given quadrilateral.
- 4. The diameters of two concentric circles being 10 and 6 feet, required the area of the ring contained between their circumferences.
- 5. The sum of any two face angles of a triedral angle is greater than the third.
- 6. The lateral area of a frustum of a regular pyramid is equal to its slant height into half the sum of the perimeters of its bases.
- 7. Write expressions for the volume of the sphere and right cylinder. Show that the volume of a sphere is to that of its circumscribed cylinder as 2 to 3.
- . Required the area of a spherical triangle described on a sphere, whose diameter is 30 feet, the angles being  $140^{\circ}$ ,  $92^{\circ}$ , and  $68^{\circ}$ .

#### June, 1883.

Note 1.—Candidates for examination on the whole of this subject should take the whole of this paper. Candidates for the first year's partial examination should take the first part; those for the second year's partial examination, the second part.

NOTE 2. - State what text-book you have studied, and to what extent.

#### I.—PLANE GEOMETRY.

- 1. (a) Define the symmetry of a figure with respect to a point and with respect to an axis.
- (b) Determine the symmetrical figure of a triangle with respect to a point lying within and with respect to an axis cutting the triangle.
- 2. The three perpendiculars from the vertices of a triangle to the opposite sides meet in the same point.
- 3. To construct a polygon similar to a given polygon, the ratio of similar to fix the two polygons being given.
- 4. (a) What is the area of a circle circumscribed about a square whose side is a?
- (b) What must be the diameter of a circle in order that the length of its circumference may be 100 feet?
- 5. To find the locus of the point from which a given line subtends a right angle.
- 6. Of all triangles having the same base and equal areas, that which is isosceles has the minimum perimeter.

## II. - SOLID AND SPHERICAL GEOMETRY.

- 7. Between two lines not in the same plane, one, and only one, common perpendicular can be drawn.
- 8. All parallelopipeds having the same base and equal altitudes are equal in volume.
- 9. Show that opposite spherical triangles are symmetrical. If two symmetrical spherical triangles are isosceles, they are identically equal.

10. Write expressions for the lateral area and volume of the prism and regular pyramid: also for the entire surface and volume of the right cylinder and sphere.

## September, 1883.

[State what text-book you have studied, and to what extent.]

- 1. Every point in the bisector of an angle is equally distant from the sides of the angle; and every point within the angle, but not on the bisector, is nearer that side toward which it lies.
- 2. If the sum of two opposite angles of a quadrilateral is equal to two right angles, the vertices of the four angles lie on a circle.
- 3. (a) Write expressions for the area of the triangle, parallelogram, trapezoid, and circle.
- (b) The areas of similar figures are to each other in what ratio?
  - (c) How would you find the area of any quadrilateral?
- 4. (a) When is a variable magnitude said to have a limit? Give an example to illustrate the definition.
- (b) Apply the theory of limits to show that the area of a circle is equal to half the product of its circumference by its radius.
- 5. If from any point perpendiculars be dropped upon two intersecting planes, the angle between these perpendiculars will be equal to the dihedral angle between the planes, adjacent to the angle in which the point is situated.
- 6. The area of a spherical triangle is proportional to its spherical excess.
- 7. Required the entire surface and volume of a right cone whose altitude is 12 feet, and the diameter of its base 15 feet.
- 8. The radius of a sphere is bisected at right angles by a plane. What is the ratio of the two parts into which the plane divides the spherical surface?

## ALGEBRA.

## July, 1880.

[State what text-book you have studied, and to what extent.]

I.

- 1. Resolve the following expressions into factors,  $16 a^4 b^2 24 a^2 b m x + 9 m^2 x^2$ ;  $9 a^2 b^2 16 a^2 c^2$ ;  $a^3 8 b^3$ .
- 2. Given  $\frac{x}{a+b} + \frac{y}{a-b} = \frac{1}{a-b}$  and  $\frac{x}{a+b} \frac{y}{a-b} = \frac{1}{a+b}$ ; find x and y.
  - 3. Given  $\sqrt{a-x} + \sqrt{b-x} = \frac{b}{\sqrt{b-x}}$ , to find x.
  - 4. (a) From  $2\sqrt{72a^2}$  take  $\sqrt{162a^2}$ .
    - (b) Find the value of  $\sqrt{2} \times \sqrt[3]{3} \times \sqrt[4]{5}$ .
    - (c) Divide 8a b by  $2a^{\frac{1}{3}} b^{\frac{1}{3}}$ .
    - (d) Simplify  $\frac{a^2b}{3c}\left(\frac{a^7b^4}{9c}\right)$ .
- 5. Given  $\frac{3x}{2} + 4x 8 > 3$  and  $6x + \frac{5x 15}{3} < 18$ , to find a superior and inferior limit of x.

H.

- 6. Given  $\frac{x+2}{x-2} \frac{x-2}{x+2} = \frac{5}{6}$ , to find the values of x.
- 7. Given  $x^2 + xy = ay^2 + xy = b$ , to find x and y.
- 8. Expand  $\frac{1+2x}{1-x-x^2}$  into a series by the method of indeterminate coefficients.

9. The number of permutations of n things, 3 together, is 6 times the number of combinations, 4 together; find n.

Note. — The first division of the paper extends as far as Quadratic Equations, and will be all that is required of candidates who propose to pass the partial examination only.

## September, 1880.

1. Divide 
$$\frac{x^4 - b^4}{x^2 - 2bx + b^2}$$
 by  $\frac{x^2 + bx}{x - b}$ .

2. Given  $\frac{a+4b}{m+x} = \frac{2a-3b}{3m-y}$  and 5ax-2by=c, to find x and y.

3. 
$$\sqrt{14-x} + \sqrt{11-x} = \frac{3}{\sqrt{11-x}}$$
, to find  $x$ .

4. Simplify 
$$\sqrt{24} + \sqrt{54} - \sqrt{6}$$
;  $\frac{a+b}{a-b} \sqrt{\frac{a-b}{a+b}}$ ;  $a\sqrt[m]{x} \times b\sqrt[n]{y} \times e\sqrt[n]{z}$ ;  $(\sqrt{-1})^4$ ;  $(\sqrt[4]{-1})^2$ .

5. Extract the square root of  $4 x^4 + 16 a^4 - 12 ax^3 - 24 a^3x + 25 a^2x^2$ .

6. Solve the equation 
$$3x^2 + 2x - 9 = 76$$
.

7. If 
$$\frac{a_1}{b_1} = \frac{a_2}{b_2} = \frac{a_3}{b_3} \cdots = \frac{a_n}{b_n} = r$$
, show that 
$$\frac{a_1 + a_2 + a_3 + \cdots + a_n}{b_1 + b_2 + b_3 + \cdots + b^n} = r.$$

8. Having the first term (a), the ratio (r), and the last term (l), of a geometric progression, find the sum (s), and the number (n) of the terms.

9. Expand 
$$\frac{b}{\sqrt{x^2 + a^2}}$$
 into a series by the binomial formula.

10. Solve the equations  $x^y = y^x$  and  $x^3 = y^2$ .

#### June, 1881.

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Note 2.—State at the head of your paper what text-book you have studied on the subject, and to what extent.

I.

- 1. Find the greatest common divisor of  $5a^5+10a^4b+5a^3b^2$  and  $a^3b+2a^2b^2+2ab^3+b^4$ .
- 2. Given  $\frac{13m-7x}{m+p} + \frac{4m-x}{m-p} = \frac{m+p}{m-p} kx$ , to find x.
- 3. Two masons, A and B, propose to build a wall. If both work together, they can finish it in 12 dys.; but if A work 2 dys. and B 3 dys., they will complete only one-fifth of the job. How long will it take each of them separately to do the work?
  - 4. (a) Reduce  $\sqrt[p]{a}$ ,  $\sqrt[q]{b}$ ,  $\sqrt[r]{c^2}$ , to the same index.
    - (b) Simplify the following expressions:
      - (1)  $\sqrt[3]{8 a^{3m} \sqrt{a^{4m}b}}$ ;
      - (2)  $4\sqrt{48} + \sqrt{147} 4\sqrt{12}$ ;
      - $(3) \frac{(2)^{\frac{2}{3}}(9)^{\frac{1}{5}}(3)^{\frac{1}{5}}}{(3)^{\frac{3}{5}}(4)^{\frac{1}{2}}(2)^{\frac{1}{2}}}.$
  - 5. Given  $2\sqrt{2x+2} + \sqrt{x+2} = \frac{12x+4}{\sqrt{8x+8}}$ , to find x.

H.

- 6. Given  $4x \frac{36 x}{x} = 46$ , to find x.
- 7. Determine by inspection the roots of the equation,  $x^2 (a+b)x + (a+c)(b-c) = 0,$

and state the principle upon which you do so.

- 8. Given  $x^2y + xy^2 = a$  and  $x^2y xy^2 = b$ , to find x and y.
- 9. Expand  $(a^3 + b^3)^{\frac{1}{3}}$  to four terms by the binomial formula.
- 10. Show that the modulus of any system of logarithms is equal to the reciprocal of the Naperian logarithm of the base of the system; and also that it is equal to the logarithm of the Naperian base taken in the system.

### September, 1881.

[State what text-book you have studied on the subject, and to what extent.]

- 1. Resolve  $a^6 b^6$  into four factors.
- 2. Given  $\frac{7}{\sqrt{x}} + \frac{4}{\sqrt{y}} = 4$  and  $\frac{1}{\sqrt{x}} + \frac{2}{\sqrt{y}} = 1$ , to find x and y.
- 3. Simplify the following expressions:
  - $(a) \frac{a^{\frac{2}{3}}}{a^{-\frac{1}{3}}}; \qquad (b) (a^{\frac{2}{3}})^5; \qquad (c) \sqrt[4]{a^{\frac{2}{3}}};$
  - (d)  $\sqrt[2]{\sqrt[3]{5ab^6}}$ ; (e)  $\frac{2}{\sqrt{-2}}$ ; (f)  $\frac{\sqrt{2}}{\sqrt[2]{2}}$ .
- 4. Resolve the trinomial  $x^2 + 2x 120$  into its binomial factors.
  - 5. Given  $\frac{\sqrt{3x^2-1}+\sqrt{3-x^2}}{\sqrt{3x^2-1}-\sqrt{3-x^2}} = \frac{a}{b}$ , to find x.
- 6. Given  $5x^2 + 2y^2 = 22$  and  $3x^2 5y^2 = 7$ , to find x and y.
- 7. A ball rolls down an inclined plane, describing 1 ft, the first second, 3 ft, the second, and so on. How far will it go in 10 sec., and how far in the tenth second?

- 8. If the population of a certain city is now 10,000, and it increases at the annual rate of 10 per cent for the next 10 yrs., what will it be at the end of that time? [Given  $(1.1)^{10} = 2.5937 + .$ ]
- 9. Expand  $\frac{2+3x}{4+5x}$  into a series by the method of indeterminate coefficients.
- 10. Find the number of combinations of 10 things taken 4 together, and also taken 6 together.

### June, 1882.

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Note 2.—State at the head of your paper what text-book you have studied on the subject, and to what extent.

I.

- 1. Resolve  $x^3 + 8y^3$  into two factors.
- 2. Given  $\frac{10a 5x}{a + b} \frac{5a x}{a b} = cx$ , to find the value of x.
- 3. There are three workmen, A, B, C. A and B together can perform a certain piece of work in a days; A and C together, in b days; and B and C together, in c days. In what time could each singly perform it, and in what time could they finish it if all worked together?
  - 4. Prove that if

$$\frac{a_1}{b_1} = \frac{a_2}{b_2} = \frac{a_3}{b_3} = r$$
, then  $\frac{a_1 + a_2 + a_3}{b_1 + b_2 + b_3} = r$ .

5. (a) Write equivalent expressions for the following:  $a^0$ ;  $a^{-m}$ ;  $\sqrt[3]{a^5}$ .

(b) Reduce the following expressions to simpler forms:

(1) 
$$\sqrt{45c^3} - \sqrt{80c^3} + \sqrt{5a^2c}$$
;

(2) 
$$\left[\left(\frac{\alpha^{-2m}}{b^{-2n}}\right)^{\frac{p}{m}}\right]^{\frac{q}{2n}};$$

(3) 
$$4\sqrt[3]{\frac{2}{3}} \times 2\sqrt{\frac{3}{4}}$$
.

II.

- 6. Given  $3x^2 + x = 7$ , to find x.
- 7. Given  $\frac{\sqrt{p+x}+\sqrt{p-x}}{\sqrt{x}} = \sqrt{\frac{x}{q}}$ , to find x.
- 8. Given x + y = a;  $x^2 + y^2 = b^2$ ; to find x and y.
- 9. Expand  $\frac{1+2x}{1-3x}$  into a series by the method of indeterminate coefficient.
- 10. Write equivalent expressions adapted to computation for the following:

(a) 
$$\log\left(\frac{a^n b^n}{c^p}\right)$$
;

(b) 
$$\log \sqrt{a^2 - x^2}$$
.

# September, 1882.

[State what text-book you have studied, and to what extent.]

- 1. Multiply  $\frac{x^4-b^4}{x^2+2\,bx+b^2}$  by  $\frac{x^2+bx}{x-b}$ , so as to obtain the product in its simplest form.
  - 2. Given  $x \frac{y a}{b} = e$  and  $y \frac{a x}{b} = d$ , to find x and y.
  - 3. Given  $\sqrt{4a+x} = 2\sqrt{b+x} \sqrt{x}$ , to find x.
- 4. Write the 6th power of (a-2b) by the binomial formula.

5. Simplify the following expressions:

(a) 
$$(x^{\frac{p}{2}})^n$$
; (b)  $\sqrt{\frac{32 \, m^5 \, n^{10}}{p^{15} q^{20}}}$ ; (c)  $\sqrt[4]{36 \, a^2 b^2}$ ;

(d) 
$$\sqrt{8} + \sqrt{50} - \sqrt{18}$$
; (e)  $3a\sqrt{6}b \times 5b\sqrt{2}c$ .

- 6. Solve the equation  $6x^2 13x + 6 = 0$ , and resolve the first member into its factors.
  - 7. Given x + y = p and  $xy = q^2$ , to find x and y.
- 8. A traveller has a journey of 132 miles to perform. goes 27 m. the first day, 24 m. the second, and so on, travelling 3 m. less each day than the day before. In how many days will be complete the journey?
- 9. What is the present value of a dollars due n years hence, at c per cent compound interest?
- 10. How many distinct straight lines can be drawn in joining, two and two, five distinct points, no three of which are in the same straight line?

## June, 1883.

NOTE 1. Candidates for examination in this subject, as a whole, should take the whole of this paper; those for the first year's partial examination, the first part of it; those for the second year's partial examination, the second part.

Note 2. State at the head of your paper what text-book you have studied, and to what extent.

#### I.

Reduce to their simplest forms the fractions,

(a) 
$$\frac{ax + bd + ad + be}{af + 2bx + 2ax + bf}$$
; (b)  $\frac{ax^m - bx^{m+1}}{a^2bx - b^3x^3}$ 

2. Given  $\frac{ace}{d} - \frac{(a+b)^2 x}{a} - bx = ae - 3bx$ , to find x.

- 3. A sum of money, at simple interest, amounted in m years to a dollars, and in n years to b dollars. Find the sum and the rate of interest.
- 4. Prove that if  $\frac{x-y}{m} < 1 \frac{x}{y}$ , and m is positive, then x < y.
  - 5. (a) Simplify  $(a^2b^3)^{\frac{1}{3}} + (a^2c^6)^{\frac{1}{2}}$ .
    - (b) Extract the square root of  $6 hm^{2n} + h^2 + 9 m^{4n}$ .
    - (c) Reduce  $\frac{\sqrt{x+a}+\sqrt{x-a}}{\sqrt{x+a}-\sqrt{x-a}}$  to an equivalent fraction

with a rational denominator.

II.

- 6. Given  $15x^2 20x = 35$ , to find x.
- 7. Given  $\frac{x+\sqrt{x^2-9}}{x-\sqrt{x^2-9}} = (x-2)^2$ , to find x.
- 8. Given  $x^2 xy = 48$ , and  $xy y^2 = 12$ , to find x and y.
- 9. The number of permutations of n things taken r together is equal to 10 times the number when taken r-1 together; and the number of combinations of n things taken r together is to the number when taken r-1 together as 5 to 3; required the value of n and r.
- 10. Expand  $\frac{3+2x}{5+7x}$  into a series of ascending powers of x by the method of indeterminate coefficients. (Four terms of the series will be sufficient.)

6. In a triangle ABC, given a = 309, b = 450, and  $\Lambda = 27^{\circ} 50'$ , to first determine whether the triangle admits of more than one solution, and then solve it.

#### June, 1881.

[State what text-book you have studied on the subject, and to what extent.]

- 1. Write the values of the different trigonometric functions for angles of 0°, 90°, 180°, 270°, 300°.
  - 2. Write the simplest equivalent expressions for

$$\sin\left(\frac{\pi}{2}-a\right)$$
,  $\cos\left(\frac{\pi}{2}+a\right)$ ,  $\tan\left(\frac{3}{2}\pi-a\right)$ ,  $\sin\left(2\pi-a\right)$ .

- 3. Write the fundamental formulæ connecting two or more of the trigonometric functions of the same angle, and deduce any two of them.
  - 4. Given  $\tan a = \frac{m}{n}$ , to find  $\sin a$  and  $\cos a$ .
  - 5. Deduce the formulæ,  $\cos 2\alpha = 1 2\sin^2 \alpha$ ;  $\sin \frac{1}{2}\alpha = \sqrt{\frac{1}{2}(1 \cos \alpha)}$ .
  - 6. Prove that  $\tan^{-1}\frac{1}{2} + \tan^{-1}\frac{1}{3} = \frac{\pi}{4}$ .
- 7. In a plane triangle the side a is 4575, the side b is 5656.7, and the angle B (opposite b) is 125° 25'; find the remaining parts of the triangle.

## September, 1881.

[State what text-book you have studied on the subject, and to what extent.]

- 1. Find the angle 1.8 in degrees.
- 2. Calculate the different functions of  $\frac{\pi}{6}$  and  $\frac{1}{6}$ .  $\pi$ .
- 3. Represent the different trigonometric functions of an angle in the second quadrant by lines.

4. Deduce the formula,

$$\cos a - \cos b = -2\sin\frac{1}{2}(a+b)\sin\frac{1}{2}(a-b),$$

a and b being any angles.

- 5. Given  $\tan \theta = \frac{m}{n}$ , to find the value of  $m \cos 2\theta + n \sin 2\theta$ .
- 6. In a triangle ABC, given the sides a, b, and c, respectively, opposite the angles A, B, and C, as follows:

a = 766.3, b = 672, c = 565.05, to find the angle A.

## June, 1882.

[State what text-book you have studied on the subject, and to what extent.]

- 1. Define the different trigonometric functions of an angle.
- 2. Give the algebraic sign of each function of an angle terminating in each of the four quadrants.
- 3. Show that  $\sin (\pi + a) = -\sin a$ ; and that  $\cos (2\pi a) = \cos a$ .
- 4. Find the formula for  $\tan (\alpha + \beta)$  in terms of  $\tan \alpha$  and  $\tan \beta$ . Find also the formula for  $\tan 2\alpha$  in terms of  $\tan \alpha$ .
  - 5. Given  $2a \tan \theta \sin \theta 2a \cos \theta + b = 0$ , to find  $\theta$ .
- 6. Given two sides of a plane triangle 180 and 100, and the angle opposite the former 127°33′, to find the other parts.

# September, 1882.

[State what text-book you have studied, and to what extent.]

1. Find the number of degrees in the angle subtended at the centre of a circle whose radius is 10 ft. by an arc 9 in. long.

- 2. Determine all the functions of the following angles:  $30^{\circ}$ ,  $\frac{\pi}{4}$ ,  $\frac{5}{3}\pi$ ,  $585^{\circ}$ .
- 3. Given the functions of any angle to find the functions of half that angle.
  - 4. Given  $\tan \theta = \frac{m}{n}$ , to find the value of  $\sin 2\theta$ .
  - 5. Show that  $2 \tan^{-1} a = \tan^{-1} \frac{2 a}{1 a^2}$ .
- 6. In a plane triangle, given a = 100, c = 200, and  $B = 112^{\circ} 30'$ , to find the remaining parts.

#### June, 1883.

- 1. Explain the circular measure of an angle. Express an angle of 1.5 in degrees.
- 2. Give the algebraic signs of the trigonometric functions for angles terminating in each of the four quadrants, and the values of the functions of  $0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}$ .
- 3. State some of the fundamental relations existing between the different functions of the same angle.
  - 4. Find an angle whose tangent is double its sine.
- 5. Write the different formulae which serve to solve right-angled triangles, and explain their application.
  - 6. Find a formula for expressing  $\sin \frac{1}{2}a$  in terms of  $\cos a$ .
- 7. If a, b, and c are the sides of a triangle, and a the angle opposite the side a, show that

$$a^2 = b^2 + c^2 - 2bc \cos a$$
.

Also state any application you have made of this formula.

8. In a triangle given  $A = 32^{\circ}$ , a = 40, b = 50, to find one solution of the triangle. Is there more than one? If so, how do you recognize the fact?

## September, 1883.

- 1. Express an angle of 75° in radians.
- 2. Express each of the functions of  $\left(\frac{\pi}{2} + a\right)$  by a function of a.
- 3. Form a general expression for all angles which have the same cosine.
- 4. What must the value of the cosine be in order that the tangent may be n times the sine?
- 5. To find a formula for the tangent of the sum of two angles in terms of the tangents of the angles; and from this formula to derive an expression for the tangent of twice an angle in terms of the tangent of the angle.
- 6. In a triangle ABC, given the angle  $\Lambda=118^{\circ}$  04', and the adjacent sides, b=960, and c=1686, to find the remaining angles and side of the triangle.

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#### July, 1880.

# I. Translate as literally as possible: —

a. Quum ea ita sint, tamen, si obsides ab iis sibi dentur, uti ea, quae polliceantur, facturos intelligat, et si Aednis de injuriis, quas ipsis sociisque eorum intulerint, item si Allobrogibus satisfaciant, sese cum iis pacem esse facturum. Divico respondit: Ita Helvetios a majoribus suis institutos esse, uti obsides accipere, non dare, consucrint; ejus rei populum Romanum esse testem.

b. Ibi vadis repertis partem suarum copiarum transducere conati sunt, eo consilio, uti, si possent, castellum, cui praeerat Quintus Titurius legatus, expugnarent, pontemque interscinderent; si minus potuissent, agros Remorum popularentur, qui magno nobis usci ad bellum gerendum erant, commeatuque nostros prohiberent.

- c. Impeditis hostibus propter ea, quae ferebant, onera, subito quabus portis eruptionem fieri jubet. Factum est opportunitate loci, hostium inscientia ac defatigatione, virtute militum, et superiorem pugnarum executatione, ut ne unum quidem nostrorum impetum ferrent ac statim terga verterent.
- d. Dum in his locis Caesar navium parandarum causa moratur, ex magna parte Morinorum ad eum legati venerunt, qui se de superioris temporis consilio excusarent, quod homines barbari et nostrae consuetudinis imperiti bellum populo Romano fecissent, seque ea, quae imperasset, facturos pollicerentur.

e. Britanniae pars interior ab iis incolitur, quos natos in insula ipsi memoria proditum dicunt; maritima pars ab iis, qui praedae ac belli inferenti causa ex Belgis transierant; qui omnes fere iis nominibus civitatum ap-

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- 20 pellantur, quibus orti ex civitatibus co pervenerunt, et, bello illato, ibi permanserunt atque agros colere coeperunt.
- f. Ambiorix copias suas judicione non conduxerit, quod proclio dimicandum non existimarit, an tempore
   exclusus et repentino equitum adventa prohibitus, quun reliquum exercitum subsequi crederet, dubium est; sed certe dimissis per agros nuntiis sibi quemque consulere jussit.
- II. 1. Decline obsides (1), majoribus (5), loci (16).
  - 2. Compare imperiti (23), interior (26), certe (37).
  - 3. Write the synopsis, active and passive, of intelligat (2).
- 4. State the mood and tense of the following: consucrint (6), pracerat (10), ferrent (18), imperasset (24), existimarit (34).
- 5. Give the principal parts of the following: pulliceantur (2), report (8), interscinderent (11), gerendum (13), verterent (19), incolitur (26), arti (30), colere (31), existimarit (34), exclusus (35), crederet (36), consulere (37).
  - 6. State the construction of all italicized words.
- 7. Define indirect statement (oratio obliqua), and quote an example from the above text.
- 8. Convert into direct statement (oratio directa) the example quoted in answer to question seventh.

# September, 1880.

# I. Translate as literally as possible: —

a. Eadem secreto ab aliis quaerit; reperit esse vera: Ipsum esse Dumnorigem, summa audacia, magna apud plebem propter liberalitatem gratia, cupidum rerum novarum: complures annos portoria reliquaque omnia

 A duorum vectigalia parvo pretio redempta habere, propterea quod, illo licente, contra liceri audeat nemo.

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b. Quum ab his quaereret, quae civitates, quantaeque in armis essent et quid ia bell) possent, sic reperiebat:
 Plerosque Belgas esse ortos ab Germanis, Rhenumque
 antiquitus transductos propter loci fertilitatem ibi consedisse, Gallosque, qui ea loca incolerent, expulisse.

c. His rebus gestis, quum omnibus de cansis Caesar pacatam Galliam existimaret, superatis Belgis, expulsis Germanis, victis in Alpibus Sedunis, at que ita inita hieme in Illyricum profectus esset, quod eas quoque nationes adire et regiones cognoscere volebat, subitum bellum in Gallia coortum est.

d. Germanico bello confecto, multis de causis Caesar statuit sihi Rhenum esse transcundum; quarum illa fuit justissima, quod, quum videret Germanos tam facile impelli, ut in Galliam venirent, suis quoque rehus cos timere voluit, quum intelligerent et posse et audere populi Romani exercitum Rhenum transire.

e. Utuntur aut aere aut taleis ferreis ad certum pondus examinatis pro nummo. Nascitur ibi plumbum album in mediterraneis regionibus, in muritimis ferrum, sed ejus exiqua est copia; aere utuntur importato. Materia cujusque generis, ut in Gallia, est, praeter fagum atque abietem.

j. Ac fuit antea tempus, quum Germanos Galli virtute superarent, ultro bella inferrent, propter hominum multitudinem agrique inopiam trans Rhenum colonias mitterent. Itaque ca. quae fertilissima Germaniae sunt, loca circum Hercyniam silvam, Volcae Tectosages, occupave runt atque ibi consederunt.

- II. 1. Decline vectigalia (5), ea (11), hieme (15).
  - 2. Compare parco (5), facile (20), fertilissima (33).

- 3. Write the synopsis, active and passive, of habere (5).
- 4. State the mood and tense of the following: reperit (1), andeat (6), videret (20), superarent (31), inferrent (31).
- 5. Give the principal parts of the following: quaerit (1), reperit (1), audeat (6), involvent (11), coortum (17), confecto (18), impelli (20-21), videret (20), intelligerent (22), nascitur (25), consederunt (35).
  - 6. State the construction of all italicized words.
- 7. Define indirect statement (oratio obliqua), and quote an example from the above text.
- 8. Convert into direct statement (oratio directa) the example quoted in answer to question seventh.

#### June, 1881.

# I. Translate as literally as possible: —

- a. Ei legationi Ariovistus respondit: Si quid ipsi a Caesare opus esset, sese ad eum venturum fuisse; si quid ille se velit, illum ad se venire oportere. Praeterea se neque sine exercitu in eas partes Galliae venire audere,
- 5 quas Caesar possideret, neque exercitum sine magno commeatu atque molimento in unum locum contrahere posse.
- b. Hae re statim Caesar per speculatores cognita, insidias veritus, quod, qua de causa discederent, nondum
   perspexerat, exercitum equitatumque castris continuit.
   Prima luce, confirmata re ab exploratoribus, omnem equitatum, qui novissimum agmen moraretur, praemisit.
- c. Erant ejusmodi fere situs oppidorum, ut posita in extremis lingulis promontoriisque, neque pedibus aditum
   15 haberent, quum ex alto se aestus incitavisset, quod bis accidit semper horarum viginti quattuor spatio, neque navibus, quod rursus minuente aestu naves in vadis afflictarentur.

- d. Quod ubi Caesar comperit, omnibus his rebus confectis, quarum rerum causa transducere exercitum constituerat, ut Germanis metum injiceret, ut Sigambros ulcisceretur, ut Ubios obsidione liberaret, diebus omnino decem et octo trans Rhenum consumptis, satis et ad laudem et ad utilitatem profectum arbitratus, se in Galliam recepit pontemque reseidit.
- e. Nostri, acriter in eos impetu facto, repulerunt, neque finem sequendi fecerunt, quoad subsidio confisi equites, quum post se legiones viderent, praecipites hostes egerunt, magnoque corum numero interfecto, neque sui colligendi neque consistendi aut ex essedis desiliendi facultatem dederunt.
- f. At in ejusmodi difficultatibus, quantum diligentia provideri poterat, providebatur, ut potius in nocendo aliquid praetermitteretur, etsi omnium animi ad ulciscensor dum ardebant, quam cum aliquo militum detrimento
- II. 1. Decline situs (13), pedibus (14), vadis (17).

noceretur.

- 2. Compare prima (11), acriter (26), potius (33).
- 3. Write the synopsis, active and passive, of perspecterat (10).
- 4. State the mood and tense of the following: velit (3), moraretur (12), accidit (16), viderent (28), dederunt (31).
- 5. Give the principal parts of the following: respondit (1), audere (4), contrahere (6), veritus (9), continuit (10), moraretur (12), posita (13), comperit (19), ulcisceretur (22), recepit (25), rescidit (25), confisi (27).
  - 6. State the construction of all italicized words.
- 7. Define indirect statement (oratio obliqua), and quote an example from the above text.
- 8. Convert into direct statement (oratio directa) the example quoted in answer to question seventh.

#### September, 1881.

## I. Translate as literally as possible: —

a. Eodem die ab exploratoribus certior factus hostes sub monte consedisse millia pessaum ab ipsius castris octo, qualis esset natura montis et qualis in circuitu ascensus, qui cognoscerent, misit. Renuntiatum est, fetcilem esse. De tertia vigilia Titum Labienum, legatum pro praetore, cum duabus legionibus et iis ducibus, qui iter cognoverant, summum jugam montis ascendere jubet.

b. Hoc proclio facto et prope ad internecionem gente ac nomine Nerviorum redacto, majores malu, quos una cum pueris mulicribusque in aestnaria ac paludes collectos dixeramus, hac pugna nuntiata, quum victoribus nihil impeditum, victis nihil tutum arbitrarentur, omnium, qui supererant, consensu legatos ad Caesarem miscrunt seque ei dediderunt.

- 15 c. Hostes undique circumventi, desperatis omnibus rebus, se per munitiones dejicere et fuga salutem petere intenderunt. Quos equitatus apertissimis campis consectatus, ex millium quinquaginta numero, quae ex Aquitania Cantabrisque convenisse constabat, vix quarta parte 20 relicta, multa nocte se in castra recepit.
- d. Reliquum exercitum Quinto Titurio Sabino et Lucio Aurunculeio Cottae, legatis, in Menapios atque in eos pagos Morinorum, ab quibus ad eum legati non venerant, ducendum dedit. Publium Sulpicium Rufum legatum,
  cum eo praesidio quod satis esse arbitrabatur, portum tenere jussit.
- e. Equites hostium essedariique acriter proelio cum equitatu nostro in itinere conflixerant, ita tamen ut nostri omnibus partilms superiores fuerint atque cos in silvas collesque compulerint; sed, compluribus interfectis, cupidius insecuti nonnullos ex suis amiserunt.

- f. Cum his esse hospitium Ambiorigi sciebat; item per Treviros venisse German's in amicitiam cognoverat. Hace prius illi detrahenda auxilia existimabat, quam ipsum 55 bello lacesseret; ne desperata salute aut se in Menapios abderet, aut cum Transrhenanis congredi cogeretur.
- II. 1. Decline millia (2), ducibus (6), jugum (7).
  - 2. Compare summum (7), tutum (12), cupidius (30).
  - 3. Write the synopsis, active and passive, of misit (4).
- 4. State the mood and tense of the following: supererant (13), intenderunt (17), recepit (20), tenere (26), compulerint (30).
- 5. Give the principal parts of the following: ascendere (7), reducto (9), dediderant (11), deficere (16), petere (16), relicta (20), conflixerunt (28), compulerint (30), detrahenda (34), lacesseret (35), abderet (36), congredi (36).
  - 6. State the construction of all italicized words.
- 7. Define indirect statement (oratio obliqua), and quote an example from the above text.
- 8. Convert into direct statement (oratio directa) the example quoted in answer to question seventh.

### June, 1882.

## I. Translate as literally as possible: —

- a. Relinquebatur una per Sequanos via, qua, Sequanis invitis, propter angustias ire non poterant. His quum suā sponte persuadere non possent, legatos ad Dumnorigem Aeduum mittunt, ut eo deprecatore a Sequanis
- 5 impetrarent.
  - b. Nam quod ad hostes appropinguabat, consuctudine suā Caesar sex legiones expeditas ducebat: post cas

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totius exercitus impedimenta collocarat: inde duae legiones, quae proxime conscriptae erant, totum agmen 10 claudebant praesidoque impedimentis erant.

- c. Erant hae difficultates belli gerendi, quas supra ostendimus, sed multa Caesărem tamen ad id bellum incitabant: injuriae retentorum equitum Romanorum, rebellio facta post deditionem, defectio datis obsidibus, tot civitatum conjuratio, imprimis, ne hac parte neglectă, reliquae nationes sibi idem licere arbitrarentur.
- d. Diebus decem, quibus materia coepta erat comportari, omni opere effecto, exercitus transducitur. Caesar ad utramque partem pontis firmo praesidio relicto, in fines Sigambrōrum contendit. Interim a compluribus civitatibus ad eum legati veniunt, quibus pacem atque amicitiam petentibus liberaliter respondit obsidesque ad se adduci jubet.
- e. Tune duces principesque Nerviörum, qui aliquem 25 sermonis aditum causamque amicitiae cum Cicerone habebant, colloqui sese velle dicunt. Facta potestate, cadem, quae Ambiŏrix cum Titurio egerat, commemorant: Omnem esse in armis Galliam, Germānos Rhenum transisse, Caesăris reliquorumque hiberna oppugnari.
- j. In omni Galliā corum hominum, qui aliquo sunt numero atque honore, genera sunt duo; nam plebes paene servorum habetur loco, quae nihil audet per se, nullo adhibetur consilio. Plerique, quum aut aere alieno aut magnitudine tributorum aut injuriā potentiorum premuntur, sese in servitutem dicant nobilibus: in hos eadem omnia sunt jura, quae dominis in servos.
- II. 1. Decline una (1), Sequanis (1), deprecatore (4).
  - 2. Compare proxime (9), multa (12), firmo (19).
- 3. Write the synopsis, active and passive, of relinque-batur (1).

- 4. State the mood and tense of the following: impetrarent (5), collocarat (8), ostendimus (12), contendit (20), egerat (27).
- 5. Give the principal parts of the following: persuadere (3), mittunt (4), claudebant (10), retentorum (13), neglecta (15), respondit (22), colloqui (26), velle (26), audet (32), adhibetur (33), premuntur (35), dicant (35).
  - 6. State the construction of all italicized words.
- 7. Quote (in full) from the above text an example of indirect statement.
- 8. Change into direct statement the example quoted in answer to question seventh.

#### September, 1882.

## I. Translate as literally as possible: —

- a. Ob eas causas ei munitioni, quam fecerat, Titum Labiënum legatum praefecit; ipse in Italiam magnis itineribus contendit duasque ibi legiones conscribit, et tres, quae circum Aquilciam hiemabant, ex hibernis educit; et qua proximum iter in ulteriorem Galliam per Alpes erat, cum his quinque legionibus ire contendit.
- b. Quum se illi identidem in silvas ad suos reciperent ac rursus ex silvā in nostros impetum facerent, neque nostri longius, quam quem ad finem porrecta loca aperta
  pertinebant, cedentes insequi auderent; interim legiones sex, quae primae venerant, opere dimenso castra munire coeperunt.
- c. Itaque Titum Labiēnum legatum in Treviros, qui proximi flumini Rheno sunt, cum equitatu mittit. Huic
  15 mandat, Remos reliquosque Belgas adeat atque in officio contineat, Germānosque, qui auxilio a Belgis arcessiti dicebantur, si per vim navilnes flumen transire conentur, prohibeat.

- d. Ipse cum omnibus copiis in Morinos proficiscitur, quod inde erat brevissimus in Britanniam trajectus. Hue naves undique ex finitimis regionibus et, quam superiore aestate ad Veneticum bellum effecerat, classem jubet convenire.
- e. Cicero ad hace unum modo respondit: Non esse 25 consuctudinem populi Români accipere ab hoste armato conditionem: si ab armis discedere velint, se adjutore utantur legatosque ad Caesărem mittant: sperare pro ejus justitiă, quae petierint, impetraturos.
- f. Nam fere de omnibus controversiis publicis privatisque constituunt; et si quod est admissum facinus, si
  caedes facta, si de haereditate, de finibus controversia
  est, iidem decernunt; praemia poenasque constituunt.
  Si qui aut privatus aut populus corum decreto non stetit,
  sacrificiis interdicunt. Haec poena apud eos est gravis-
- 35 sima.
- II. 1. Decline munitioni (1), hibernis (4), ei (1).
  - 2. Compare ulteriorem (5), primae (11), superiore (21).
- 3. Write the synopsis, active and passive, of *conscribit* (3).
- 4. State the mood and tense of the following: contendit (6), reviperent (7), auderent (10), conentur (17), relint (26).
- 5. Give the principal parts of the following: praefect (2), contendit (6), porrecta (9), auderent (10), dimenso (11), conentur (17), jubet (22), petierint (28), constituunt (30), decernunt (32), stetit (33), interdicunt (34).
  - 6. State the construction of all italicized words.
- 7. Quote (in full) from the above text an example of indirect statement.
- 8. Change into direct statement the example quoted in answer to question seventh.

#### June, 1883.

## I. Translate as literally as possible: -

- a. Ubi de ejus adventu Helvetii certiores facti sunt, legatos ad eum mittunt, nobilissimos civitatis, cujus legationis Nameius et Verudoctius principem locum obtinebant, qui dicerent, sibi esse in animo sine ullo maleticio iter per provinciam facere, propterea quod aliud iter haberent nullum.
- b. Temporis tanta fuit exiguitas hostiumque tam paratus ad dimicandum animus, ut non modo ad insignia accommodanda, sed etiam ad galeas induendas scutisque tegimenta detrudenda tempus defuerit. Quam quisque ab opere in partem casu devenit, quaeque prima signa conspexit, ad haec constitit, ne in quaerendis suis pugnandi tempus dimitteret.
- c. Hae re perspecta, Crassus, quum sua cunetatione atque opinione timoris hostes nostros milites alacriores ad pugnandum effecissent, atque omnium voces audirentur, exspectari diutius non oportere, quin ad castra iretur, cohortatus suos, omnibus cupientibus, ad hostium castra contendit.
- 20 d. Genus hoc est ex essedis pugnae: primo per omnes partes perequitant et tela conjiciunt, atque ipso terrore equorum et strepitu rotarum ordines plerumque perturbant, et quum se inter equitum turmas insinuaverunt, ex essedis desiliunt et pedibus procliantur.
- e. Qua re animadversa, Ambiorix pronuntiari jubet, ut procul tela conjiciant, neu propius accedant, et quam in partem Romani impetum fecerint, cedant (levitate armorum et quotidiana exercitatione *nihil iis* noceri posse), rursus se ad signa recipientes insequantur.

- Baculus, qui primum pilum ad Caesarem duxerat, cujus mentionem superioribus procliis fecimus, ac diem jam quintum cib) caruerat. Hic diffisus suae atque omnium saluti inermis ex tabernaculo prodit: videt imminere hos-
- 35 tes atque in summo esse rem discrimine: capit arma a proximis atque in porta consistit.
- II. 1. Decline adventu (1), principem (3), ullo (4).
  - 2. Compare certiores (1), nobilissimos (2), prima (11).
  - 3. Write the synopsis, active and passive, of mittunt (2).
- 4. Parse in full each word in the last two lines of passage b.
- 5. Give the principal parts of the following: obtinebant (3), detrudenda (10), effectissent (16), oportere (17), iretur (17), contendit (19), conjiciunt (21), desiliunt (24), cedant (27), noceri (28), relictus (30), diffisus (33).
  - 6. State the construction of all italicized words.
- 7. Quote (in full) from the above text an example of indirect statement.
- 8. Change into direct statement the example quoted in answer to question seventh.

## September, 1883.

## I. Translate as literally as possible: -

a. Is ita cum Caesare agit: Si pacem populus Romanus cum Helvetiis faceret, in cam partem ituros atque ibi futuros Helvetios, ubi cos Caesar constituisset atque esse

voluisset; sin bello persequi perseveraret, reminisceretur 5 et veteris incommodi populi Romani et pristinae virtutis Helvetiorum.

- b. Caesar quum septimam legionem, quae juxta constiterat, item urgeri ab hoste vidisset, tribunos militum monuit, ut paulatim sese legiones conjungerent et conversa signa in hostes inferrent. Quo facto, quum alins alii subsidium ferrent, neque timerent ne aversi ab hoste circumvenirentur, audacius resistere ac fortius pugnare coeperunt.
- c. Una erat magno usui res praeparata a nostris, falces praeacutae, insertae affixaeque longuriis, non absimili forma muralium falcium. His quum funes, qui antennas ad malos destinabant, comprehensi adductique erant, navigio remis incitato praerumpebantur.
- d. Caesar questus, quod, quum ultro in continentem 20 legatis missis pacem ab se petissent, bellum sine causa intulissent, ignoscere imprudentiae dixit obsidesque imperavit; quorum illi partem statim dederunt, partem ex longinquioribus locis arcessitam paucis diebus sese daturos dixerunt.
- e. His circumventis, magna manu Eburones, Nervii, Aduatuci atque horum omnium socii et clientes legionem oppugnare incipiunt: nostri celeriter ad arma concurrunt, vallum conscendunt. Aegre is dies sustentatur, quod omnem spem hostes in celeritate ponebant atque hanc adepti victoriam in perpetuum se fore victores confidebant.
  - f. Multum quum in omnibus rebus, tum in re militari potest fortuna. Nam sicut magno accidit casu, ut in ipsum incautum etiam atque imparatum incideret, priusque ejus adventus ab hominibus videretur, quam fama aut

- 35 nuntius afferretur; sie magnae fuit fortunae omni militari instrumento, quod circum se habebat, erepto, rhedis equisque comprehensis, ipsum effugere mortem.
- II. 1. Decline bello (4), veteris (5), alius (10).
  - 2. Compare veteris (5), audacius (12), fortius (12).
  - 3. Write the synopsis, active and passive, of agit (1).
- 4. Parse in full each word in the last two lines of passage d.
- 5. Give the principal parts of the following: voluisset (4), persequi (4), reminisceretur (4), inferrent (10), aversi (11), insertae (15), comprehensi (17), praerumpehantur (18), questus (19), petissent (20), adepti (30), erepto (36).
  - 6. State the construction of all italicized words.
- 7. Quote (in full) from the above text an illustration of indirect statement.
- 8. Convert into direct statement the example quoted in answer to question seventh.

#### LATIN EXERCISES.

#### July, 1880.

- 1. The Helvetians<sup>1</sup> move<sup>2</sup> (their) camp<sup>3</sup> from<sup>4</sup> this<sup>5</sup> place<sup>6</sup>.
- 2. Cæsar does the same (thing).
- 3. Cæsar sends-forward<sup>9</sup> all<sup>10</sup> (his) cavalry<sup>11</sup>.
- 4. The cavalry was sent-forward by 12 Cæsar.
- 5. Cæsar will move (his) camp and send-forward all (his) cavalry.
- 6. The Helvetians having moved (their) camp<sup>14</sup>, Casar did the same (thing).
  - 7. Cæsar said<sup>15</sup> he would move his camp.
- 8. (Re-write sentence seventh so as to illustrate direct statement.)
- 9. The Helvetians say: "The Roman<sup>16</sup> people<sup>17</sup> is a witness<sup>18</sup>."
- 10. (Re-write sentence ninth so as to illustrate indirect statement.)

<sup>1</sup> Helyetius. 7 facere. 13 que. 14 use subjunctive with quum. <sup>2</sup> movere. 8 idem. 3 castra. 9 praemittere. 15 dicere. 10 omnis. 4 ex. 16 Romanus. 5 is. 11 equitatus. 17 populus. 6 locus. 12 3. 18 testis.

### September, 1880.

- 1. Labienus¹ fortifies² the camp³.
- 2. The camp is fortified by Labienus.
- 3. Labienus set-out<sup>5</sup> against<sup>6</sup> the enemy<sup>7</sup>.
- 4. Labienus ascertained the design of the enemy (plural).
- 5. Labienus, having ascertained<sup>16</sup> the design of the enemy (plural), fortifies (his) camp.

- 6. Labienus set-out with 10 five 11 cohorts 12.
- 7. Labienus said<sup>13</sup> he would set-out with five cohorts.
- 8. (Re-write sentence seventh so as to illustrate direct statement.)
- Labienus says: "I will move<sup>14</sup> the camp at daybreak<sup>15</sup>."
- 10. (Re-write sentence ninth so as to illustrate indirect statement.)

<sup>1</sup> Labienus.	7 hostis.	12 cohors.
<sup>2</sup> communire.	8 cognoscere.	13 dicere.
3 castra.	9 consilium.	14 movere.
4 a.	10 cum.	15 prima lu

<sup>5</sup> proficisci. <sup>11</sup> quinque. <sup>16</sup> use ablative absolute.

6 contra.

#### June, 1881.

- The horsemen<sup>1</sup> of Ariovistus hurl<sup>2</sup> stones<sup>3</sup> and<sup>4</sup> darts<sup>5</sup> at<sup>6</sup> the Romans.
- 2. Stones and darts are hurled at the Romans by the horsemen of Ariovistus.
- 3. It was reported to Cæsar (that) the horsemen of Ariovistus were hurling stones and darts at the Romans.
- 4. (Re-write sentence third so as to illustrate direct statement.)
- 5. It was reported to Cæsar (that) the horsemen of Ariovistus had hurled stones and javelins at the Romans.
- 6. (Re-write sentence fifth so as to illustrate direct statement.)
- 7. When's it had been reported to Casar (that) the horsemen of Ariovistus were hurling stones and javelins at the Romans, he made<sup>9</sup> an end<sup>10</sup> of speaking<sup>11</sup>.

1	eques.	5	telum.	9 facere
2	conjicere.	6	in.	10 finis.
3	lapis.	7	nuntiare.	11 loqui.
4	ane.	8	ounn with	subjunctive.

### September, 1881.

- 1. The Ubii<sup>1</sup> kill<sup>2</sup> a great<sup>3</sup> number<sup>4</sup> of the Suevi<sup>5</sup>.
- 2.  $\Lambda$  great number of the Suevi are killed by the Ubii.
- 3. The Ubii pursued<sup>6</sup> the terrified<sup>7</sup> Suevi.
- 4. The terrified Suevi were pursued by the Ubii.
- 5. The Ubii, having pursued the terrified Suevi, killed a great number of them.
- 6. It was reported to Casar (that) the Ubii had killed a great number of the Suevi.
- 7. (Re-write sentence sixth so as to illustrate direct statement.)
- 8. It was reported to Casar (that) the Ubii were pursuing the Suevi.
- 9. (Re-write sentence eighth so as to illustrate direct statement.)

<sup>1</sup> Ubii. <sup>2</sup> occidere.

<sup>4</sup> numerus. <sup>5</sup> Suevi. 7 perterritus.
 8 nuntiare.

3 magnus.

6 insequi.

### June, 1882.

- 1. The Helvetians<sup>1</sup> send<sup>2</sup> embassadors<sup>3</sup> to<sup>4</sup> Dumnorix<sup>5</sup>.
- 2. Embassadors are sent to Dumnorix by the Helyetians.
- 3. The Helvetians were not able to persuade the Sequani.
- 4. The Helvetians say<sup>10</sup> (that) they are not able to persuade the Sequani.
- 5. (Re-write sentence fourth in such a manner as to illustrate direct statement.)
- 6. The Helyetians said: "We are unable to persuade the Sequani."

7. (Re-write sentence sixth in such a manner as to illustrate indirect statement.)

<sup>1</sup> Helvetius. <sup>5</sup> Dumnorix. <sup>8</sup> persuadëre (governs dative).

<sup>2</sup> mittère. <sup>6</sup> non. <sup>9</sup> Sequanus. <sup>3</sup> legatus. <sup>7</sup> posse. <sup>10</sup> dieère.

4 ad.

### September, 1882.

- 1. Casar leads-forth three legions from winter-quarters.
- 2. Three legions are led-forth from winter-quarters by Casar.
- 3. Caesar said he would lead-forth three legions from winter-quarters.
- 4. (Re-write sentence third in such a manner as to illustrate direct statement.)
- 5. Cæsar said: "I have led-forth three legions from winter-quarters."
- 6. (Re-write sentence fifth in such a manner as to illustrate indirect statement.)
- 7. Casar, having-hastened into Italy, led forth three legions from winter-quarters.

1 educere. 4 ex. 7 contendere (use pluperf. subj. with quum).

<sup>2</sup> tres. <sup>5</sup> hiberna. <sup>8</sup> in.

<sup>3</sup> legio. <sup>6</sup> dicĕre. <sup>9</sup> Italia.

#### June, 1883.

- 1. The envoys come to Casar.
- 2. The envoys will come to Cæsar.
- 3. Cæsar sends back the envoys immediately.6
- 4. The envoys were immediately sent back by Cæsar.
- 5. The envoys, who reame to Casar, were immediately sent back.

- 6. If the envoys had come to Cæsar, they would have been immediately sent back.
- 7. Caesar forms 9 the design 10 of sending back the envoys. (Use gerundive construction.)
- 8. (Rewrite sentence seventh, and use gerund instead of gerundive.)
  - 9. It is said, "Cæsar has sent back the envoys."
- 10. (Rewrite sentence ninth so as to employ indirect statement.)

1 legatus.	<sup>3</sup> ad.	<sup>5</sup> remittere.	7 qui.	<sup>9</sup> capĕre.
<sup>2</sup> venīre.	<sup>4</sup> Cæsar.	6 statim.	8 si.	10 consilium.

#### September, 1883.

- 1. The Helvetians 1 burn 2 four hundred 3 villages. 4
- 2. Four hundred villages are burned by the Helvetians.
- 3. The Heivetians will burn four hundred villages.
- 1. Four hundred villages will be burned by the Helvetians.
- 5. Casar<sup>5</sup> says<sup>6</sup> (that) the Helvetians have burned four bundred villages.
- 6. (Rewrite sentence sixth, and substitute direct statement.)
- 7. The Helvetians formed the plan of burning four hundred villages. (Use the gerundive construction.)
- 8. (Rewrite sentence seventh, and use gerund instead of gerundive.)
  - 9. The Helyetians say they will burn four hundred villages.
- 10. (Rewrite sentence ninth so as to illustrate direct statement.)
  - 1 Helvetius. 3 quadringenti. 5 Cæsar. 7 capëre. 2 incendëre. 4 vicus. 6 dicëre. 8 consilium.

#### HISTORY OF THE UNITED STATES.

#### July, 1880.

- 1. What territory has the United States acquired by purchase? by conquest? by annexation?
- 2. State the causes of (1) the French and Indian War; (2) the Revolutionary War; (3) the War of 1812.
- 3. Arrange the following events in the order in which they occurred, with their dates: Admission of California to the Union, assembling of the first Continental Congress, acquisition of Florida, second election of Monroe, opening of the Eric Canal, capture of Atlanta, death of Daniel Webster.
  - 4. What was the Wilmot Proviso?
  - 5. What Vice-Presidents were afterward elected Presidents?
- 6. Give the names of the opposing political parties in 1800; in 1840; in 1860.

### September, 1880.

- 1. What territory was granted by James I. to the London Company? to the Plymouth Company?
  - 2. Describe the settlement of Virginia.
- 3. Arrange the following events in the order in which they occurred, with their dates: Surrender of Cornwallis, the admission of West Virginia to the Union, the Whiskey Rebellion, the negotiation of Perry's treaty with Japan, the adoption of the Constitution.
- 4. When and where was the Confederate Government formed?
  - 5. What was the Compromise of 1850?
- 6. What President was impeached? What Presidents were elected by the Federalist party?

#### July, 1881.

- 1. When and where did the Spaniards make their first permanent settlement in North America? the English? the French?
- 2. State the causes and the results of the French and Indian War.
- 3. Arrange the following events in the order in which they occurred, with their dates: Election of John Adams, settlement of Georgia, battle of Gettysburg, introduction of slavery, assembling of the second Continental Congress, opening of the Pacific Railroad, annexation of Texas.
- 4. Sketch the career of Benjamin Franklin; of Abraham Lincoln.
  - 5. What was the Fugitive Slave Law?
  - 6. Who was President in 1803? in 1843? in 1873?

### September, 1881.

- 1. Sketch the settlement founded by Roger Williams; by James Oglethorpe.
  - 2. How were the Colonies governed before the Revolution?
- 3. Arrange the following events in the order in which they occurred, with their dates: Impeachment of Andrew Johnson, surrender of Burgoyne, introduction of the Telegraph, Lincoln's Emancipation Proclamation, battle of New Orleans, purchase of Louisiana, death of Washington.
- 4. Give the names of the opposing political parties in 1800; in 1868.
  - 5. When was the Constitution adopted?
  - 6. Sketch the administration of Monroe; Fillmore.

#### June, 1882.

- 1. Give in chronological order the following dates: Settlement of Georgia, Bacon's Rebellion, foundation of St. Augustine, battle of Germant own, admission of Kentucky, secession of South Carolina.
  - 2. Describe the settlement of Rhode Island.
- 3. What changes were made in the French possessions in America by the Treaty of Paris?
- 1. When did the first Continental Congress meet, and what did it do?
  - 5. What was the Missouri Compromise?
  - 6. Who were the presidential candidates in 1860?

#### September, 1882.

- 1. Give in chronological order the following dates: Battle of Plattsburg, foundation of Rhode Island Colony, New England Confederation, discovery of the Hudson, admission of Missouri.
  - 2. Describe the Settlement of Georgia.
- 3. When and how did the United States acquire Louisiana and Florida?
  - 4. What were the patroons?
  - 5. What is the Monroe doctrine?
- 6. When and by what States was the Southern Confederacy formed?

#### June, 1883.

- 1. Give in chronological order the following dates: La Salle's exploration of the Mississippi; Battle of the Brandywine; presidencies of John Quincy Adams, Van Buren, Taylor; King Philip's War; Frobisher's first voyage; Settlement of Jamestown.
- 2. Describe the settlement of New York, and explain the origin of its name.
- 3. Show the difference between royal, proprietary, and charter colonies.
- 4. Give, with their dates, the principal events that led to the revolt of the colonies from the passage of the Stamp Act to the battle of Lexington.
- 5. What were the Virginia and Kentucky resolutions, and by what were they occasioned?
- 6. State the causes and the general results of the Mexican War.

#### September, 1883.

- 1. Give in chronological order the following dates: Battle of Lundy's Lane; settlement of Maryland; invasion of Mexico; trials for Witchcraft at Salem; presidencies of Polk, Buchanan, Jackson; emancipation of the slaves.
- 2. Give an account of the foundation of the Connecticut and New Haven Colonies.
- 3. When, for what purpose, and on what terms was the New England Confederation formed?
- 4. Give the date, causes, and results of the French and Indian War.
- 5. When was the treaty of Ghent made, and what were its provisions?
- 6. Give an account of the compromise of 1850, and the questions which it was intended to settle.

#### GEOGRAPHY.

#### July, 1880.

- 1. Bound the State of Mississippi; name its larger cities, and tell how they are situated.
- 2. Where is the Cape of Good Hope; Cape May; Cape St. Lucas; Cape Race?
  - 3. What countries of America border on the Pacific Ocean?
- 4. Where does the River Rhine rise, run, and empty, and what countries does it touch?
- 5. What countries of Europe touch the Mediterranean Sen?
- 6. Where are the following cities: Melbourne, Milwaukee, Havre, Valparaiso, Cairo?

#### September, 1880.

- 1. Bound the State of Virginia; what are some of its larger cities, and how are they situated? and what are some of the principal rivers in it or on its borders?
- 2. What States (of the U.S.) border on the Gulf of Mexico? name them in their order, beginning with Texas.
- 3. Where does the Missouri River rise? describe the direction of its course; what States and Territories does it pass through or touch?
- 4. Where are the following European cities, and how are they situated: Bremen, Venice, Cologne, Hayre, Hamburgh?
- 5. Where are the Aleutian Islands? the Azores? the Bermudas? the Philippines? the Bahamas?
- 6. Bound British India. Give the names of some of its principal rivers, mountains, and cities, and tell how each is situated.

#### July, 1881.

- 1. Bound the State of Tennessee; name two cities in the State, and tell how and where they are situated.
- 2. What States of the United States touch Lake Erie? what large cities are situated on it, and in what States are they?
- 3. Where are the Cascade Mountains? what river or rivers break through them? name some peaks in them; in what States or Territories are they?
- 4. What is the Torrid Zone? about how many English miles wide is it? name three cities in it, and tell where they are situated.
- 5. Where does the River Rhine rise? what direction does it run? where does it empty, and what countries does it touch?
- 6. Where are the following cities: Baltimor, Singapore, Havana, Manilla, Detroit?

### September, 1881.

- 1. Bound the State of Missouri; name its largest city, and tell how it is situated.
- 2. What States and Territories of the United States touch British America or the Great Lakes through which the boundary runs (name them in their order, beginning with Maine, and passing west)?
- 3. Describe the Russian Empire, its position, its capital, its principal rivers.
- 4. Where does the River Oronoco rise? what is its course? where does it empty, and what countries does it touch?
- 5. Where are the following cities: Glasgow, Bombay, Valparaiso, Rochester, Bremen?
- 6. What countries surround the Mediterranean Sea, and where is each one located?

#### June, 1882.

- 1. Bound the State of Ohio; name two cities in it, and tell how they are situated.
- 2. Where does the Rio Grande River rise? where does it run and empty, and what States and Territories does it touch?
- 3. Where is Hindoostan? name two rivers in it, and where they rise, which direction they run, and where they empty: name two cities in it, and tell how they are situated.
- 4. Bound Spain; what is its capital? name two chains of mountains in it, and tell their situation.
- 5. Where are the following islands: Cyprus, Ceylon, Teneriffe, Trinidad, and Shetland?
- 6. How wide is the North Temperate Zone in English miles?

#### September, 1882.

- 1. Bound the State of Georgia; give the names of two cities in it; of two rivers in it; and what mountains are in it.
- 2. Where are the following cities: Buffalo, Denver, Milwaukee, Memphis, Louisville, Atlanta?
- 3. Give the names of three scaports in South America; tell what country each one is in, and how each is situated.
- 4. How is the Black Sea bounded? what waters are connected with it? name two rivers that empty into it, and tell where they flow from.
  - 5. Bound Morocco, and describe its position.
- 6. Where is Lake Winnipeg? what river runs into it from the United States? what is its outlet, and where does it empty?

#### June, 1883.

- 1. Bound the State of Colorado; give the names of two rivers in it, and tell where they rise, run, and empty; give the name of one city in it, and tell where it is situated.
- 2. If we travel due south from Lake Michigan to the Gulf of Mexico, what States would we touch?
- 3. Bound France; give the names of two rivers in it, and tell where they rise, run, and empty; give the names of two cities in it, and tell where they are situated.
- 4. Where are the following cities: Santiago, Salem, Singapore, Sacramento, Sydney, Savannah?
- 5. What States and Provinces touch Lake Erie? Give the names of three rivers that empty into it, and tell where they come from.
- 6. Give the names of four seaports in Asia, tell what countries they are in, and how they are situated.

### September, 1883.

- 1. Bound the State of Michigan, give the names of two cities in it, and tell where they are situated.
- 2. If we travel due west from North Carolina to the Pacific Coast, what States and Territories should we touch?
- 3. Bound Russia; what is its capital, and where is it situated; give the name of one other city in Russia, and tell where it is situated.
- 4. Where are the following cities: Manchester, Manila, Marseilles, Madrid, Memphis, Minneapolis?
- 5. What countries of Africa touch the Atlantic Ocean? Give their names in their order from north to south.
- 6. Give the names of four seaports in South America, tell what countries they are in, and how they are situated.

#### ENGLISH GRAMMAR.

#### July, 1880.

- 1. Parse the words in the following sentences: -
  - (a) Many were present who had no desire to change.
  - (b) The wages of sin is death.
- 2. Name the parts of speech, with an illustrative example of each one.
- 3. Inflect throughout the pronouns of the first and second persons.
- 4. Give the principal parts of the verbs lie, lay, draw, ride, thrive, set, sit, and go.

#### June, 1881.

- 1. Mention the various classes of pronouns, and give the names of the pronouns belonging to each class.
- 2. How many conjugations of the verb are there, and how are they distinguished?
  - 3. Parse the following sentence:

The friends, upon whom he had once relied, were now become his bitterest enemies; in one alone had he not been disappointed.

#### June, 1882.

- 1. Define noun and verb.
- 2. Name the relative pronouns. State in reference to what each is used.
- 3. Give examples of three verbs with their principal parts from each one of the two English conjugations, the old (or strong), and the new (or weak).
  - 4. Parse the following: -

I here declare those whom I did accuse Are innocent. 'Tis I alone am guilty.

#### June, 1883.

- 1. Define the *subject* and the *predicate* of a sentence.
- 2. Give the two methods of comparing the adjective.
- 3. State the distinction existing between the old (or strong) and the new (or weak) conjugation of the verb, and give three examples of verbs of each conjugation.
  - 4. Parse the words in the following sentence:

    He, by whom the sword of the law is borne, is himself the law's servant, and not its master.



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- 10. Italia Superior et Corsica.
- II. Italia Inferior, Sicilia, et Sardinia (et Campania, Syracuse, Roma).

- 12. Imperium Romanum (et Imp. Rom. Orient. et Occid.).
- 13. Græcia (et Athenæ, Marathon, Thermopyke)
- 14. Peloponnesus, Attica, Bocotia, Phocis, Ætolia, et Acarnania.
- Gravia a Bello Peloponnesiaco, usque ad Philippum II. (et Mantinec Leuctra, Platæa).
- 16. Asia Minor (et Campus Trojæ, Bosporos, Troas, Ionia, etc.).
- 17. Syria et Palestina (et Hierosolyma, etc.).
- 18. Armenia, Mesopotamia, Babylonia, Assyria (et Iter Xenophontis).
- 19. Regnum Alexandri Magni (et Granicus, Issus, Arbela).
- 20. Persia et India (et India Ptolemæi).
- 21. Ægyptus, Arabia, et Æthiopia (et Ægyptus Inferior).
- 22. Africa (et Carthago, Alexandria, Numidia et Africa Propria).
- 23. Europe, showing the general direction of the Barbarian Inroads during the Decline and Fall of the Roman Empire.

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W. W. Goodwin, Prof. of Greek, Harvard Univ.: It is a most beautiful and highly useful work, and I am glad to see what used to be an expensive luxury brought within the means of all students of the classics. (Dec. 2, 1880.)

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# The Reader's Guide to English History.

A classified list of works in English History, including poems, dramas, and works of fiction, arranged by periods, for convenience of reference. With a Supplement, extending the plan over other departments of history, — ancient, modern, European, and American. By WILLIAM Francis Allen, A.M., Professor in the University of Wisconsin. Long Svo. Paper. 50 pages. Mailing Price, 30 cts.; Introduction, 25 cts. The Supplement can be had separately; Mailing Price, 10 cts.

The arrangement is that of four parallel columns upon two opposite pages: the first column containing the English sovereigns, in the several houses, in the form of genealogical tables; the second, good historical reading, whether histories, biographics, or essays; the third, novels, poems, and dramas illustrating that period of English History, — also, so far as possible, arranged chronologically; the fourth, the same class of works illustrating contemporary history.

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Charles F. Richardson, Prof. of Anglo-Saxon and English, Dartmouth Coll,: The wealth of English historical fiction has not elsewhere been made so evident and so accessible.

George B. Adams, Prof. of Hist. and Eng. Lit., Drury Coll., Springfield, Mo.: I like the idea of the work very recommending it. (Oct. 7, 1882.)

From a review in "L'Athenaum Belge" (Brussels), by Paul Frédericq, Prof. in the Univ. of Liège. . . .

F. A. March, Prof. of the English Un manuel d'histoire d'Angleterre, séduisant. . . . Je crois en avoir dit d'Angleterre sur ce manuel précieux à

> Educational Times, that are undesirable, from either a literary or a historical point of view. The result is an extremely agreeable historical hand-book, not merely for children, but for adults. It is not only a novelty, but a useful novelty. (Feb. 1, 1883.)

> Atlantic Monthly: It is an admirable hand-book, in which the really necessary books and chronological facts are given, to the exclusion of lumber

> New England Journal of Education: No one in this country is bet

Boston Advertiser: Dr. Diesterweg's observations are practical and admirably arranged. Much that he writes may with propriety and advantage be applied to other branches of instruction than history, and few teachers could fail to be profited by a perusal of his monograph.

N. E. Journal of Education: We know of no work so valuable to students and readers of history as this.

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as history. Neither teacher nor pupil dreams that any other method is possible, and accordingly history is cordially hated. A thorough study of this book would do much to remedy this defective method, and make the study of history delightful to all pupils, and to the teacher first of all.

The Christian Union: Among those who are applying to educational questions the best experience of the past, and the results of exhaustive, conscientious individual thinking, Dr. G. Stanley Hall holds a foremost place; he brings to the discussion ample knowledge, ripe experience, and a philosophical temper.

# History Topics, for High Schools and Colleges.

PART I.: Dynastic and Territorial History of Ancient and Modern Times. PART II.: History of the United States. With an Introduction upon the Topical Method of Instruction in History. By WILLIAM FRANCIS ALLEN, Professor in the University of Wisconsin. Square 16mo. Paper. 121 pages. Mailing price, 30 cts.; Introduction, 25 cts.

A course in general history should leave the student in possession of three things: First, an entline of chronology; secondly, a knowledge of the great decisive events and names of history: thirdly, some idea of the relation of contemporaneous events to one another at these great epochs, — as we may call them. — historical distances, historical emphasis, and syn hiroxisms. The method here presented, by its strictly chronological arrangement and its selection of special topics, is intended to accomplish the two first of these ends; a synchronistic table, carefully drawn up by each member of the class, with strict adherence to chronological proportion, will accomplish the third and, while assisting in the clear exposition of historical distances.

The first object of the topical method is to give prominence to the most important names and events of history, and concentrate the reading of the students upon certain selected ones of these. A second object is to encourage independent research.

In an appendix is given a classified list of those books which are considered most serviceable in connection with this method.

# Methods of Teaching and Studying History.

(Vol. I., Pedagogical Library.) Edited by G. Stanley Hall, Ph.D., Lecturer on Psychology and Ethics, and on Pedagogy in Harvard and Johns Hopkins Universities. 12mo. Cloth. Mailing Price, \$1.30; Introduction, \$1.20.

PART I. is a translation of the Monograph of Diesterweg on Historiology, regarded by German teachers as the most helpful treatise in all the voluminous literature upon the subject in their language. It discusses the meaning, uses, classes, limits of historical study; the material, manner of arrangement, aids and method of teaching; advantages of the study of different periods, and the best order and way of approach, etc.

PART II. consists of independent contributions of the following prominent teachers of history: Prof. Chas. K. Adams, University of Michigan; Prof. W. F. Allen, University of Wisconsin; Prof. Herbert B. Adams of Johns Hopkins University; Prof. Richard T. Ely, Johns Hopkins University; Pres. Andrew D. White of Cornell University; Prof. J. W. Burgess of Columbia College, N.Y.; Edward Atkinson, Mass. Inst. of Technology; and T. W. Higginson, Cambridge, Mass.; also an article on The Relation of Physical Geography and History; with a very carefully selected and discriminated bibliography by Prof. Allen of Wisconsin University; and an introduction by the editor. It is thought that this volume will be indispensable to every teacher and student of history in the country.

The Nation: The general excel- | desire for something better where inlence and helpfulness of the book before us ought to secure it many readers, to teachers who are conscious of deficiencies in their preparation, as to principals and school boards who wish for assistance in laying out courses of study. It contains few details of fact, of principles.

The American: The volume is certainly an excellent one, and one that ought help to fill a need where a need has been felt, and to create a some of us have known.

dolence or brainlessness has brought about a perverse satisfaction. question is whether the proportion of teachers anxious for and capable of "who merely hear recitations, keeping the finger on the place in the textbook, and only asking the questions conveniently printed for them in the

Yale Courant: It would certainly

# An Etymology of Latin and Greek.

With a Preliminary Statement of the New System of Indo-European Phonetics, and Suggestions in Regard to the Study of Etymology. By CHARLES S. HALSEY, A.M., Principal of Union Classical Institute, Schenectady, N.Y. 12mo. Cloth. 272 pages. Mailing Price, \$1.25. Introduction, \$1.12.

The following are the prominent features of the work: —

- 1. It presents the subject in a systematic form. The general principles and laws of the science are first clearly stated and illustrated; then the words are treated in their etymological order. This produces a result far better than can be obtained from the mere study of detached words scattered irregularly through a lexicon.
- 2. It gives a new and simple plan, presenting side by side for each group of related words the form of the root in Indo-European. Sanskrit, Greek, and Latin, with the meaning of the root. Following these roots are the most practical Greek words and the most practical Latin words, with their meanings. This furnishes a valuable stock of words associated by the natural bond of their common derivation, each language, too, throwing light upon the other.
- 3. It presents within moderate compass the results of the lates investigations of the highest authorities, omitting doubtful etymologies, and is thus at once rigidly scientific and thoroughly practical.
- 4. It gives great prominence to the derivation of English words, supplying to a large degree the place of an English etymology.
- 5. Being furnished with a complete index for every root and word treated, it can be conveniently used as a work of reference.
- 6. It presents the entire subject in a form thoroughly adapted to school use in classes. The study of Etymology, as here presented, may begin with the very outset of the study of Latin, and be continued through the entire course of classical study. It may be parsural with a separate recitation, or in brief portions, in connection with the recitations from the Greek and Latin authors.
- 7. The present work is the first school-book to set forth in the English language the principles and the application of the new system of L.-E. Phonetics. This it does in full, and in a practical and mengable form. This work may be used without confusion in connection with any grammar or lexicon; and it supplies thoroughly what they may lack in the important department of Etymology.



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